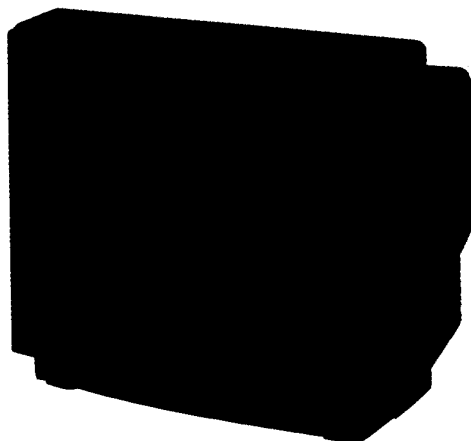


KV-X2533E

RM-689

SERVICE MANUAL



Spanish Model

Chassis No. SCC-D55D-A

Scandinavian Model

Chassis No. SCC-D55D-A



AE-1B CHASSIS

Note: The service manual for RM-689 has been issued separately.

MODELS OF THE SAME SERIES

KV-X2533E

KV-X2133E

SPECIFICATIONS

Television system B/G/H

Color system PAL, SECAM, NTSC3.58, NTSC4.33

Channel coverage VHF : E2-E12 UHF : E21-E69
CABLE : S01-S03, S1-S41

Picture tube Trinitron tube
Approx. 63.5 cm (25 inches)
(Approx. 59 cm picture measured diagonally
110-degree deflection)

Inputs Ⓖ 1 21-pin connector :
CENELEC standard including RGB input.
Ⓖ 2 21-pin connector :
including S video input
Ⓖ 3 Video, Audio : phono jack.

Outputs 21-pin connector : CENELEC standard
Headphones jack : stereo minijack
External speaker terminals : 2-pin DIN
Audio output jacks : phono jack (output
dependent upon TV settings)

Sound output 15 W + 15 W (music power)

Power consumption 104Wh

Dimensions Approx. 575x489x480 mm (w/h/d)

Weight Approx. 35.0 kg

Supplied accessories RM-689 Remote Commander (1)
IEC designation R6 batteries (2)

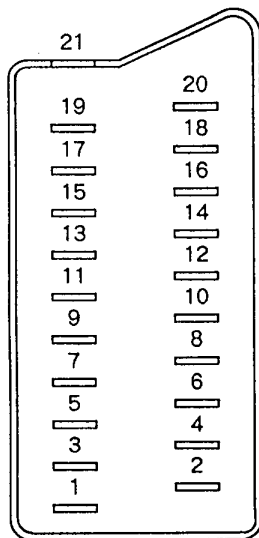
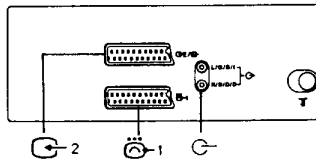
Design and specifications are subject to change
without notice.

TRINITRON® COLOR TV

SONY®



21 pin connector (1, 2)



| Pin No | 1 | 2 | Signal | Signal level |
|--------|---|---|------------------------------|---|
| 1 | ○ | ○ | Audio output B (right) | Standard level : 0.5Vrms Output impedance : Less than 1kohm* |
| 2 | ○ | ○ | Audio input B (right) | Standard level : 0.5Vrms Input impedance : More than 10kohms* |
| 3 | ○ | ○ | Audio output A (left) | Standard level : 0.5Vrms Output impedance : Less than 1kohm* |
| 4 | ○ | ○ | Ground (audio) | |
| 5 | ○ | ○ | Ground (blue) | |
| 6 | ○ | ○ | Audio input A (left) | Standard level : 0.5Vrms Input impedance : More than 10kohms* |
| 7 | ○ | ● | Blue input | 0.7V±3dB, 75ohms, positive |
| 8 | ○ | ○ | Function select (AV control) | High state (9.5–12 V) : Part mode Low state (0–2 V) : TV mode Input impedance : More than 10kohms Input capacitance : Less than 2 nF |
| 9 | ○ | ○ | Ground (green) | |
| 10 | ○ | ○ | Open | |
| 11 | ○ | ● | Green | Green signal : 0.7V±3dB, 75ohms, positive |
| 12 | ○ | ○ | Open | |
| 13 | ○ | ○ | Ground (red) | |
| 14 | ○ | ○ | Ground (blanking) | |
| 15 | ○ | – | Red input | 0.7V±3dB, 75ohms, positive |
| | – | ○ | (S signal) chroma input | 0.3V±3dB, 75ohms, positive |
| 16 | ○ | ● | Blanking input (Ys signal) | High state (1–3 V) Low state (0–0.4 V) Input impedance : 75ohms |
| 17 | ○ | ○ | Ground (video output) | |
| 18 | ○ | ○ | Ground (video input) | |
| 19 | ○ | ○ | Video output | 1V±3dB, 75ohms, positive Sync : 0.3V (–3, +10dB) |
| 20 | ○ | – | Video input | 1 V±3dB, 75ohms, positive Sync : 0.3V (–3, +10dB) |
| | – | ○ | Video Input/Y (S signal) | 1 V±3dB, 75ohms, positive Sync : 0.3V (–3, +10dB) |
| 21 | ○ | ○ | Common ground (plug, shield) | |

○ connected

● unconnected (open)

* at 20 Hz–20 kHz

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS. THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!


COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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NICAM Reception

Reception of NICAM broadcast is possible if the NICAM adaptor (available at your Sony dealer) is installed in the TV.

When the NICAM broadcast is being received, indicators illuminate according to the sound being heard.

Select the sound you want to hear by pressing the A/B bilingual button. Each time the A/B bilingual button is pressed, the sound will change as indicated with arrows in the following chart.

○ means that the indicator lights up.

× means that the indicator dose not light up.

| The NICAM sound being broadcast | The sound you hear (Select with the A/B bilingual button.) | Indicators | | |
|---------------------------------|--|------------|---|------------|
| | | A | B | ⊗* (NICAM) |
| Stereo | Stereo ← | ○ | ○ | ○ |
| | ↓ Regular | × | × | ○ |
| A + B (Bilingual) | A ← | ○ | × | ○ |
| | ↓ B | × | ○ | ○ |
| | ↓ Regular | × | × | ○ |
| A | A ← | ○ | × | ○ |
| | ↓ Regular | × | × | ○ |
| Regular only | Regular | × | × | × |

* When the NICAM adaptor is installed, the ⊗ space sound indicator will function as the NICAM indicator (the space sound function will not be affected). When the NICAM broadcast is being received, the NICAM indicator lights up even when the regular sound has been selected.

When you turn on the TV, what sound will be heard?
When the Regular sound and the NICAM sound are the same, the NICAM sound will be heard.

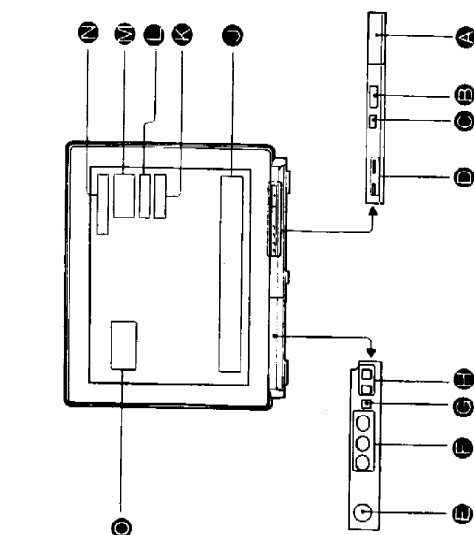
When the Regular sound and the NICAM sound are different, the Regular sound will be heard.

Note

The West German stereo programs can be received as explained in the supplied Operating Instructions.

SECTION 1 GENERAL

1-1. FUNCTION OF CONTROLS



ON THE SET

A Power Switch

Use it to switch the set on and off. When you switch the set on, the programme number of the station tuned in will be indicated in the on-screen display (M) for some seconds. In case of short breaks of operation, you can switch the set on and off using the Remote Commander (See <CONTROLS ON THE REMOTE COMMANDER>).

B Remote control detector

(See <CONTROLS ON THE REMOTE COMMANDER>).

C Standby/Response indicator

This indicator lights up when the TV set is in standby mode and it flashes each time the set receives signals from the Remote Commander.

D Stereo A/B indicators

During bilingual programmes one of the two indicators lights up, depending upon the selected channel A or B. When stereo programmes are broadcast both indicators light up. (See <CONTROLS ON THE REMOTE COMMANDER>).

Jacks and control panel (front of set)

The jacks and the control panel are situated behind a cover. Please press the arrow marking on the cover to open it.

E Headphones jack (stereo minijack)

Connect only stereo headphones.

F Input jacks

Video input jack (phono jack) (G-3 (yellow))
Audio input jacks (phono jacks) (G- (red and white)).

G Mode select button

Use this button to select either the channel select mode, volume adjustment (Δ) or the G- input mode.

H Adjustment buttons +/-

Select at first the item to be adjusted using the Mode select button (P: channel select mode), Δ (volume) or G- (input mode), then adjust the item by pressing the + or - button.

You can also use these buttons to reset the picture and sound adjustments to the factory-set levels. For this purpose press both buttons simultaneously.

On-screen display

When you repeatedly press button (M) on the Remote Commander, the following information will be indicated on the screen in turn:

M Picture and sound adjustment items:

contrast, (O) colour, (C) brightness, (Y) bass, (B) treble or balance and their respective levels; as well as (M) mute, (S) space sound, (L) loudness and NICAM indications, when the respective buttons are pressed.

When you press button (K) on the Remote Commander, the following information will be indicated on the screen:

K TV-System: 1 (normal UK broadcast system)

L Channel number

M Programme number or input mode:

G-1, G-, G-2, G-3;

N Indication of the station name

O AV output indication; 1 G-, 2 G-, 3 G- or TV G- (see <CONTROLS ON THE REMOTE COMMANDER>).

Connectors on the rear

P Euro-AY connector 21-pin pin (G-2/G-2)

For connecting a VTR, 8 mm video camera recorder, a video disc player or in general devices with an S-Video-output.

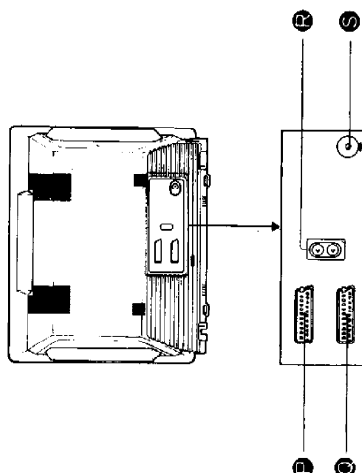
Q Euro-AY connector 21-pin pin (G-1)

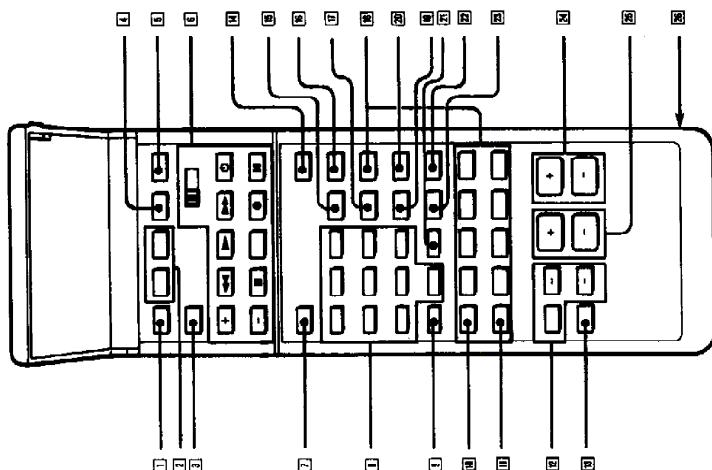
For connecting a VTR, a computer etc. with RGB output.

R Audio-output jacks (phono jacks) (G-)

For connecting audio equipment, e.g. an amplifier, so that the sound will be output at the audio equipment. In this case the volume is adjustable on the TV set.

S Aerial terminal T





ON THE REMOTE COMMANDER

On the set there is a Remote Control detector (15), which receives the signals of the Remote Commander.

- 1 → Preset-button Used for selecting the Preset mode. See →TO PRESET CHANNELS.

- 2 → Tuning +/- buttons
a) Preset mode: Used for tuning in stations in the Automatic Station Search. See →TO PRESET CHANNELS.
b) TV-mode: Used for fine-tuning a station. See →ADDITIONAL FUNCTIONS.

- 3 C.. button (Clear)
Used for clearing programme positions, so that the position will be skipped when the PROG +/- buttons are pressed. See →TO PRESET CHANNELS.

- 4 Store button: Used for storing channels. See →TO PRESET CHANNELS.

- 5 TV-system-select-button
This button has no function.

- 6 Video selector and video operation buttons
Used for operating Sony video equipment. For details see →OPERATING OTHER EQUIPMENT.

- 7 Mute button
By pressing this button the sound of the set will be switched off and by pressing it once more the sound will be restored.

- 8 Number buttons
a) Used to select programme positions or to input channel numbers (in the preset mode).
b) If the set is in the standby mode, press one of the number buttons to switch it on.
c) After pressing the output select button (9) the buttons 1-2 can be used to select the different output connectors.

- 9 +/- Button
In case of two digit numbers, press first this button and then the two respective number buttons (8).

- 10 Button for On-screen display
By pressing this button, information about the station tuned-in will be indicated on the screen. The indications will disappear after some seconds with the exception of the programme number and label, which will stay on the screen until the button is pressed once again.

- 11 Time button
In TV-mode: If teletext service is broadcast on the selected channel, press this button to display the current time on the screen and once again to make it disappear.

- 12 +/- Buttons for picture and sound adjustments
a) TV-mode:
The picture and sound adjustments are stored as standard values. You have, however, the possibility to change them to your individual liking. Press the button repeatedly until the required item is indicated in the on-screen display: 1 contrast, 2 colour, 3 brightness, 4 hue (only for NTSC colour system), 5 bass, 6 treble or balance. You can adjust the settings by pressing the + or - button.
b) Preset-mode: Use these buttons to name a station. See →TO PRESET CHANNELS.

- 13 → ← Reset-button
By pressing this button the picture and sound adjustments are reset to the factory-set levels.

- 14 Standby-button
Press this button to switch the set into standby-mode. You can switch it on again by pressing the TV-button (5) or one of the number buttons (8). To return to the teletext mode, press (9) button. There will be a slight delay before the picture is restored.

Note

Use the Standby-button (14) only when switching the set off for a short period of time. If the set will not be used for a longer span of time, switch it off by using the Power switch (28).

- 15 Input-Select-Button
Press this button to select the audio- or video-signals input at the various input connectors. With each pressing of the button a different connector is selected. The following indications will appear sequentially:
1 → 2 (RGB) → 3 → 2 → 3

- 16 TV-Button
When pressing this button the set returns from standby, video input- or teletext mode to the TV-mode.

- 17 Output-Select-Button
Press this button to select the audio- or video signals to be output at the 3/5 connector.
With each pressing of the button a different output source will be selected. The following indications appear sequentially:
1 → 2 → 3 → 3 → 2 → 3

- 18 Teletext operation buttons
These buttons are used for teletext operation. See →VIEWING TELETEXT.

- 19 Loudness button
By pressing this button the high and low tones will be emphasized. Press the button again to restore the normal sound. The indications on the screen will be 1 (ON) or 2 (OFF).

- 20 A/V button
To select the audio channel of bilingual programmes. Usually the dubbed version is broadcast on channel A and the original sound is broadcast on channel B. In the video input mode (Euro-AV-connectors) this possibility of selecting channels also exists for stereo VTR connection.

- 21 C (Channel select) button
Use this button for direct channel tuning in the TV-mode. See →ADDITIONAL FUNCTIONS.

- 22 This button has no function on this set.

- 23 Space sound button
Press this button to obtain special acoustic effects. Press it again to restore the normal sound. The indications on the screen will be 3 (on) or 4 (off).

- 24 PROG +/- buttons
TV-mode: Use these buttons to scan the available programmes up- or downwards.
Preset mode: Use these buttons to scan the available channels up or downwards.

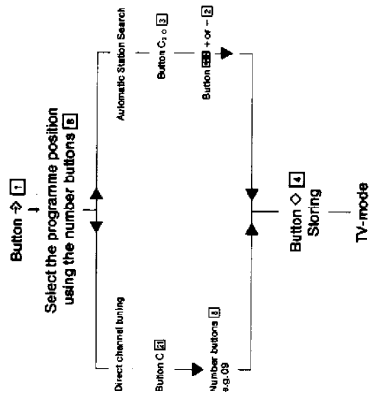
- 25 +/- buttons for adjusting the volume

- 26 Battery compartment (on the rear)

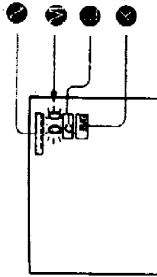
1-2. TO PRESET CHANNELS

Use the buttons on the Remote Commander for presetting. In total there are 60 programme positions at your disposal for storing channels. There are two different ways of tuning in channels:

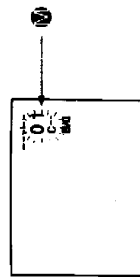
- 1. Direct Channel Tuning**
If you know the channel number of a station you can input it directly.
- 2. Automatic Station Search**
The set searches automatically for stations.



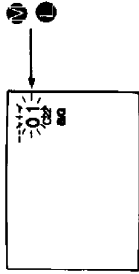
- 1. Direct Channel Tuning**
1. Press the Preset button 0 1. You are now in the preset mode of the set. The programme number in the on-screen display 01 starts blinking.



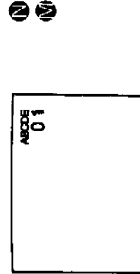
2. With the buttons PROG +/- or the number buttons 0-9 you can select the programme position. In case of two-digit numbers, first press the button +/- and then the two number buttons.



3. Press button C 2. The indication «C» and the channel number start blinking in the display. Select the channel number with two digits (e.g. 22) using the number buttons 0-9.



4. Press the button 0 1 in order to store the channel and to return to the TV-mode.



If you want to store further channels, repeat the steps 1 to 4.

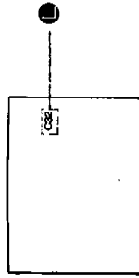
2. Automatic Station Search

1. Press button 0 1. You are now in the preset mode of the set. The programme number in the on-screen display 01 starts blinking.
2. With the PROG buttons +/- or the number buttons 0-9 you can select the programme position. In case of two-digit numbers, first press button +/- and then the two number buttons.
3. If there is already a stored station on the selected programme position, press button C 2.
4. Press one of the tuning buttons +/- to start the station search. The search will be interrupted as soon as a station is tuned in. Press the tuning buttons repeatedly until you find the desired station.
5. If you have found the desired station, press button 0 1. Now the selected station is stored and you are back in the TV-mode.
6. If you want to store further stations, repeat the steps 1-5.

ADDITIONAL FUNCTIONS

Direct Channel Tuning in the TV-mode
You have the possibility to tune in channels directly when the set is in the TV-mode without storing these channels. Example: if you tune in channel number 32 and then switch the set off or change the programme position, this channel will be cancelled.

1. Press the button C 2. In the display 01 the indication «C» will appear.
2. Select the channel number with two digits using the number buttons 0-9 (e.g. for channel 4 press first 0, then 4). The indication on the screen will disappear within some seconds.



Manual Fine Tuning

If the reception of a channel is not satisfactory, you have the possibility to deactivate the Automatic Fine Tuning, which is usually in operation during presetting in order to tune in the best possible picture. Press one of the tuning buttons +/- to fine-tune a channel. The Automatic Fine Tuning will be restored when the respective programme position is pressed once again.

Skipping of unused programme positions

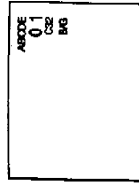
Using button C 2 you have the possibility to skip unused programme positions (e.g. without a stored station), when pressing the buttons PROG +/- on the Remote Commander.

1. Press button 0 1. You are now in the preset mode of the set.
2. Use the buttons PROG +/- to select a programme position, which you want to have skipped.
3. Press button C 2.
4. Press button 0 1 to store the cleared programme position and to return to the TV-mode.

The skipped programme position still appears when you press the number buttons 0-9 on the Remote commander.

If you want to name a station
After presetting the stations you have the possibility to name them. The selected name will appear in the on-screen display 01.

1. Press the preset button 0 1.
2. Press the button 0 1. The first column of the station name starts blinking. Press either button + or - 0-9, A-Z or - for a blank space).
3. Press button 0 1 again. Now the second column starts blinking and you can select the second character. In this way five characters can be selected.
4. Press button 0 1 to store the station name.



Notes

- If you press the preset button 0 1 instead of button 0 1 the set will return to the TV-mode without storing the channels.
- If you press a wrong programme or a channel number, an «x» will be displayed on the screen.
- When pressing two number buttons, the second number button should be pressed within 5 seconds after the first one, otherwise the operation will be cancelled.

1-3. VIEWING TELETEXT

To view the teletext service, use the Remote Commander. The buttons for teletext operation are indicated in green.

Operation

- 1 Select the TV channel for the desired teletext service. If the signal is weak, teletext errors often occur.
- 2 Press **Ⓢ** (TEXT/MIX) to display the teletext service.
- 3 Key in the three digits of the desired page using the number buttons. If an error is made, complete the three-digit sequence by keying in any digit. Then, re-enter the correct page number.

The requested teletext page is displayed.

Note

Buttons not referred to in the text do not operate.

To request the index page

Press **Ⓢ** (INDEX).

If the necessary signal is not being broadcast, page 100 is displayed.

To access the next or preceding page

Press **Ⓢ** (PAGE +) or **Ⓢ** (PAGE -).

To superimpose the teletext display on the picture (MIX)

Press **Ⓢ** twice from the TV mode.

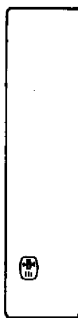
Press **Ⓢ** again to return to the TEXT display.

To suppress the teletext display so that the picture is restored

Press **Ⓢ** (text clear). This button can be operated from both the text and mix displays.

To prevent a teletext page from being updated/changed

Press **Ⓢ** (HOLD). The HOLD symbol appears on the screen. To resume normal teletext reception, press **Ⓢ** (TEXT/MIX).



To resume normal teletext reception, press **Ⓢ** (TEXT/MIX).

To enlarge the teletext display

Press **Ⓢ** once to enlarge the upper half of the display; press again to enlarge the lower half of the display. And press again to return to the normal display.

To reveal concealed information such as answers to a quiz

Press **Ⓢ** (REVEAL).

Press again to conceal the answers.

To watch the TV programme while waiting for a requested page to be displayed

1 Request the new page.

P101

To view this page, press **Ⓢ** (TEXT/MIX).

To have a requested page displayed at a pre-determined time

1 Request a time coded page (e.g. alarm page).

2 Press **Ⓢ** (TP ON).

"T****" will appear at the bottom of the screen.

T****

3 Enter your request time with the number buttons, using four digits. For example, 07:30:

T0730

To watch the TV programme until the requested time, press **Ⓢ** (TEXT CL). At the requested time, the page number will be displayed at the bottom of the screen.

To view the page, press **Ⓢ** (TEXT/MIX).

To cancel the request, first ensure that the teletext page is displayed, then press **Ⓢ** (TP OFF).

FASTEXT Operation

FASTEXT Teletext enables you to access pages quickly and conveniently with one key operation.

When a FASTEXT page is broadcast a colour coded menu will appear at the bottom of the screen. Each coloured prompt relates to the coloured keys on the Remote Commander. Pressing one of these will select the page described by the prompt.

Selection may also be made by entering the three digit page number in the normal way.

Correct FASTEXT operation relies on the necessary signals being transmitted by the Broadcasting Authorities. It is possible that some Broadcasters will not support this transmission.

If FASTEXT is not transmitted, the decoder will operate as outlined above.

The set is capable of receiving NICAM, which is a newly developed digital stereo broadcast system. NICAM programmes are broadcast in three ways: stereo, bilingual or monaural sound besides the regular (FM mono) sound, and you can select the sound you want to hear by pressing the A/B button **Ⓢ**. Each time the button is pressed, the sound changes sequentially, as indicated with arrows in the following chart.

| NICAM sound being broadcast | The sound you hear (Select with the A/B button Ⓢ .) |
|-----------------------------|--|
| Stereo | Stereo → Regular → Stereo (etc.) |
| Bilingual | A → B → Regular → A (etc.) |
| Monaural | A → Regular → A (etc.) |

Whenever a NICAM broadcast is received, the **Ⓢ** indication appears on the screen and disappears after a few seconds.

When the NICAM programme ends, the **Ⓢ** indication appears for a few seconds.

| The sound being broadcast | The selected sound | Ⓢ indicators | | NICAM indication on the screen |
|---------------------------|--------------------|--------------|---|--------------------------------|
| | | A | B | |
| NICAM + Regular | Stereo | x | x | |
| | A | x | o | |
| | B | o | x | x |
| | Regular | o | o | |
| Regular | Regular | o | o | o |

x means that the indicator **Ⓢ** lights up or the indication appears.

o means that the indicator does not light up or the indication is not displayed.

1-4. OPERATING OTHER EQUIPMENT

To view the input picture

Press the **G-1** button repeatedly until the desired input signal indication appears on the screen.

G-1: To view the audio and video signal input through the **G-1** connector on the rear.

G-1: To view the RGB signal (i.e. from a computer, etc.) input through the **G-1** connector.

G-2: To view the audio and video signal input through the **G-2/E** connector on the rear.

E: To view the S video signal (from a VTR equipped with an S video output) input through the **G-2/E** connector.

G-3: To view the audio and video signal input through the **G-3** connectors and the audio input jacks (yellow, white and red) on the front.

You can also select the desired input mode using the buttons on the front of the set. Select the **G** mode with the mode select (**P** → **Δ** → **G**) button then press **+/-** button.

To return to the TV mode, press the TV-button **TV**.

To select the signal to be output from the **G-2/E** connector.

Press the **G**-button repeatedly until the desired output source is indicated on the screen.

1 **G**: The audio and video signal input through the **G-1** connectors is output from the **G-2/E** connector.

2 **G**: The audio and video signal input through the **G-2/E** connector is output from the **G-2/E** connector.

3 **G**: The audio and video signal input through the **G-3** connectors is output from the **G-2/E** connector.

TV **G**: The audio and video signal input through the **T** serial terminal (i.e. usually the TV signal) is output from the **G-2/E** connector.

The indication will disappear after a few seconds.

Note

The TV-signal is always output at the EURO-AV connector **G-1**.

To operate Sony video equipment
The video operation buttons **G** on the Remote Commander can operate certain VTRs and video disc players manufactured by Sony.

1. Switch the video selector to the desired position.

VIDEO 1: to operate Sony Betamax VTR and SLV 202 VHS.

VIDEO 2: to operate Sony 8 mm VTR.

VIDEO 3: to operate Sony VHS VTR.

MDP: to operate Sony video disc player including a multi disc player.

2. Press the operation button(s) to start operation.

PROGR +/-: to select the desired programme on the VTR.

▶: to start playback, or to release the pause mode

■: to stop the tape or the disc

◀: to rewind the tape from stop mode or to rapidly go back to the desired position on the disc or tape from playback mode

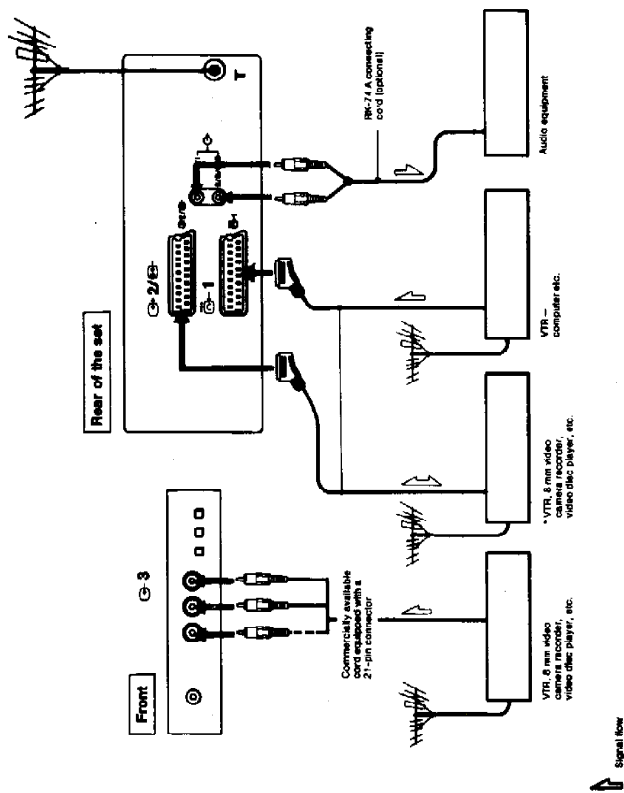
▶▶: to fast forward wind from stop mode or rapidly advance the tape or disc to the desired position from playback mode

●: to start recording on the VTR
Be sure to press this button and the one on the right simultaneously

⏻: to switch the video equipment on and off

■: to stop the tape or the disc temporarily (pause)
Press again to release pause mode

1-5. CONNECTING OTHER EQUIPMENT



• Connect the S video output of the VTR, etc. here.

Note

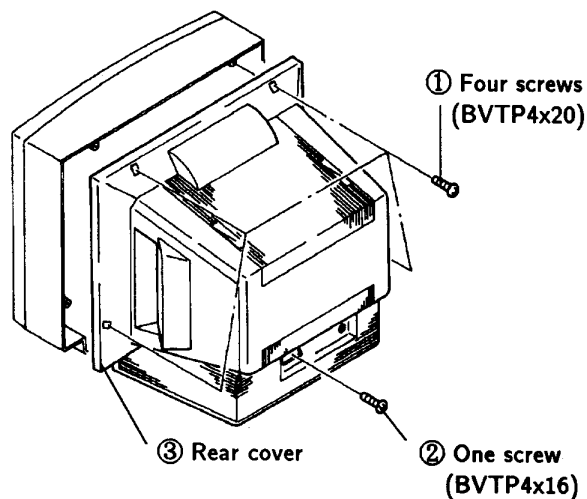
- It is also possible to connect a VTR using the **T** terminal. In this case, connect the aerial to the aerial terminal of the VTR.
- Move the VTR away from the TV if the picture or the sound is distorted.
- Computers which have RGB output only can be connected to the **G-1** input connector.

S video input (Y/C input) E
Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals. Usually these two signals are combined in a VTR and output as one signal, and supplied to a TV. Separation of the Y and C signals prevents them from interfering with one another, thereby improving picture quality (especially in luminance). This set is equipped with a S video input through which these separated signals can be input directly. Connect the S video output jack on the VTR to the S video input on this set.

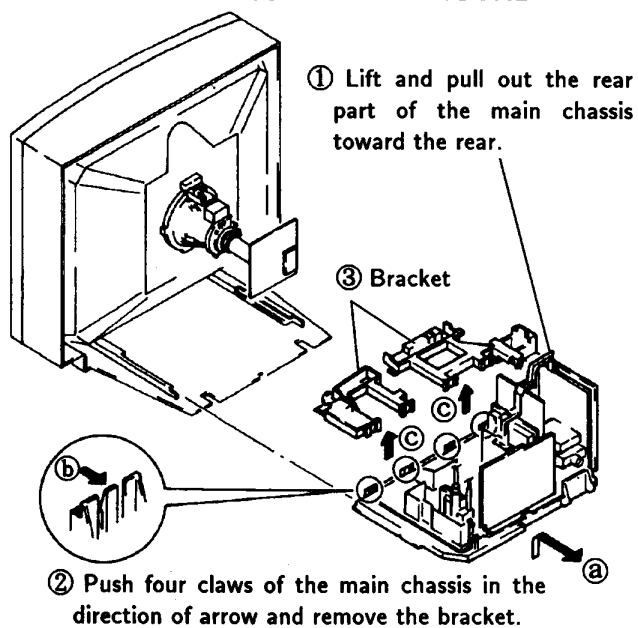
Note: Not all VTR's are equipped with S video output capability. (Refer to VTR operating manual.)

SECTION 2 DISASSEMBLY

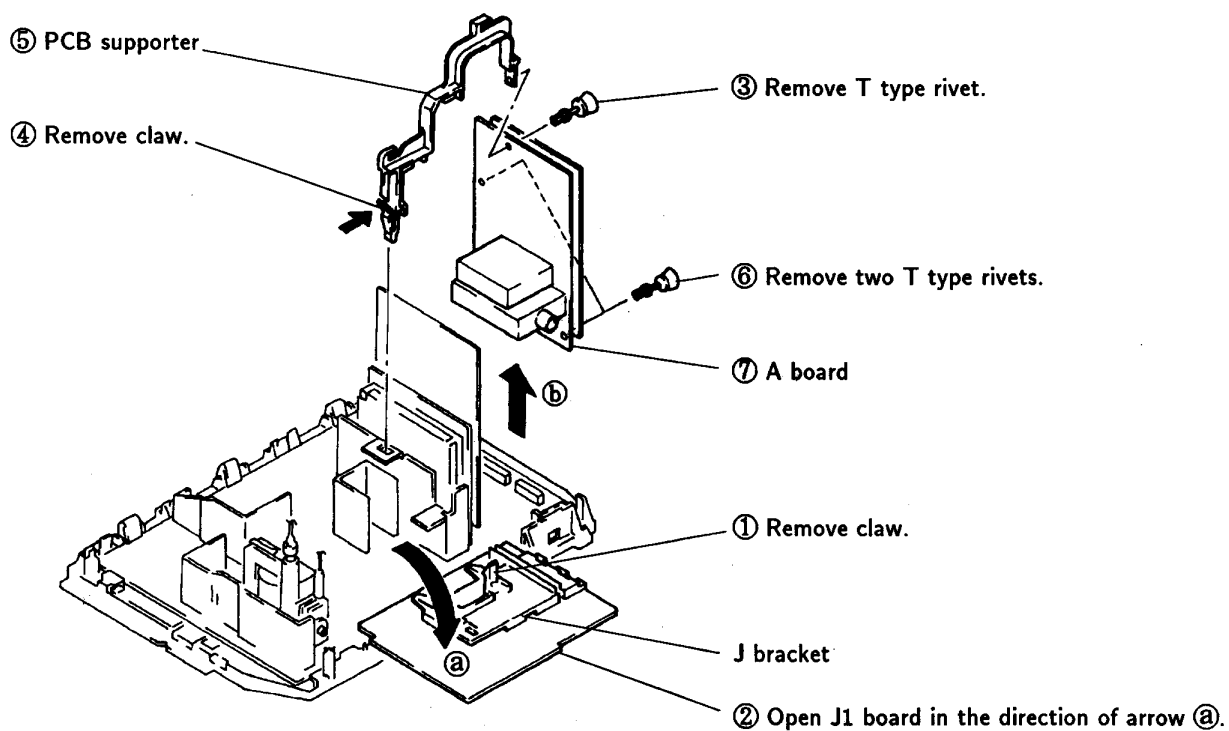
2-1. REAR COVER REMOVAL



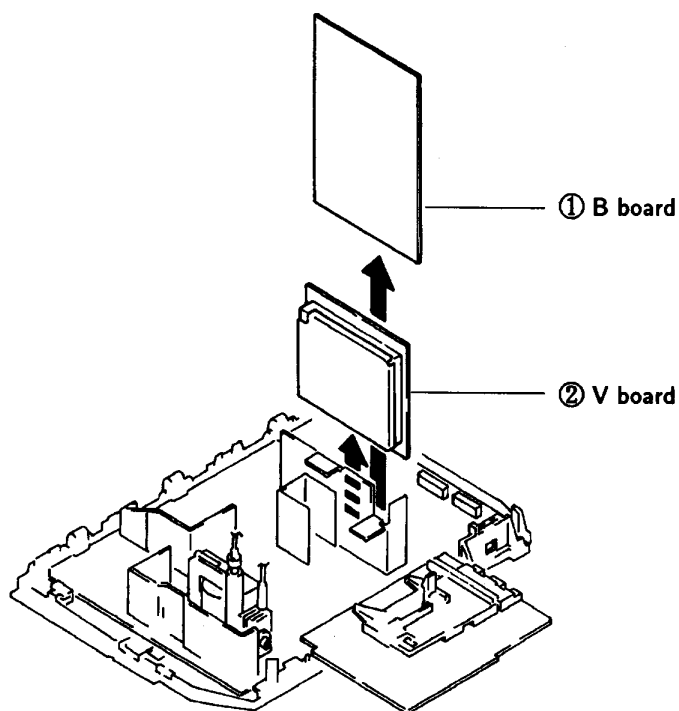
2-2. CHASSIS ASSEMBLY REMOVAL



2-3. A AND J1 BOARDS REMOVAL

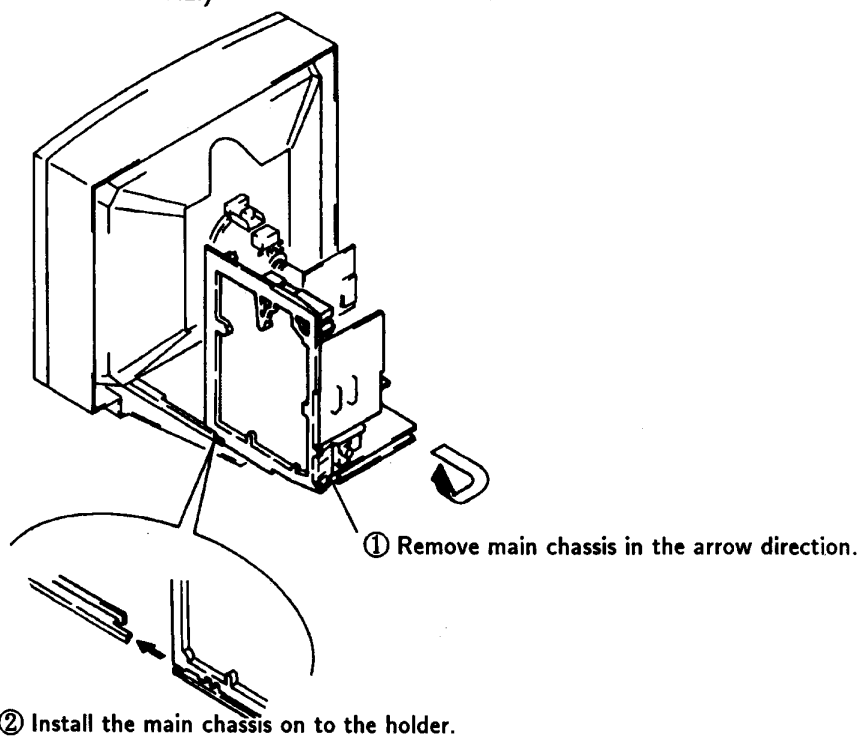


2-4. B AND V BOARDS REMOVAL

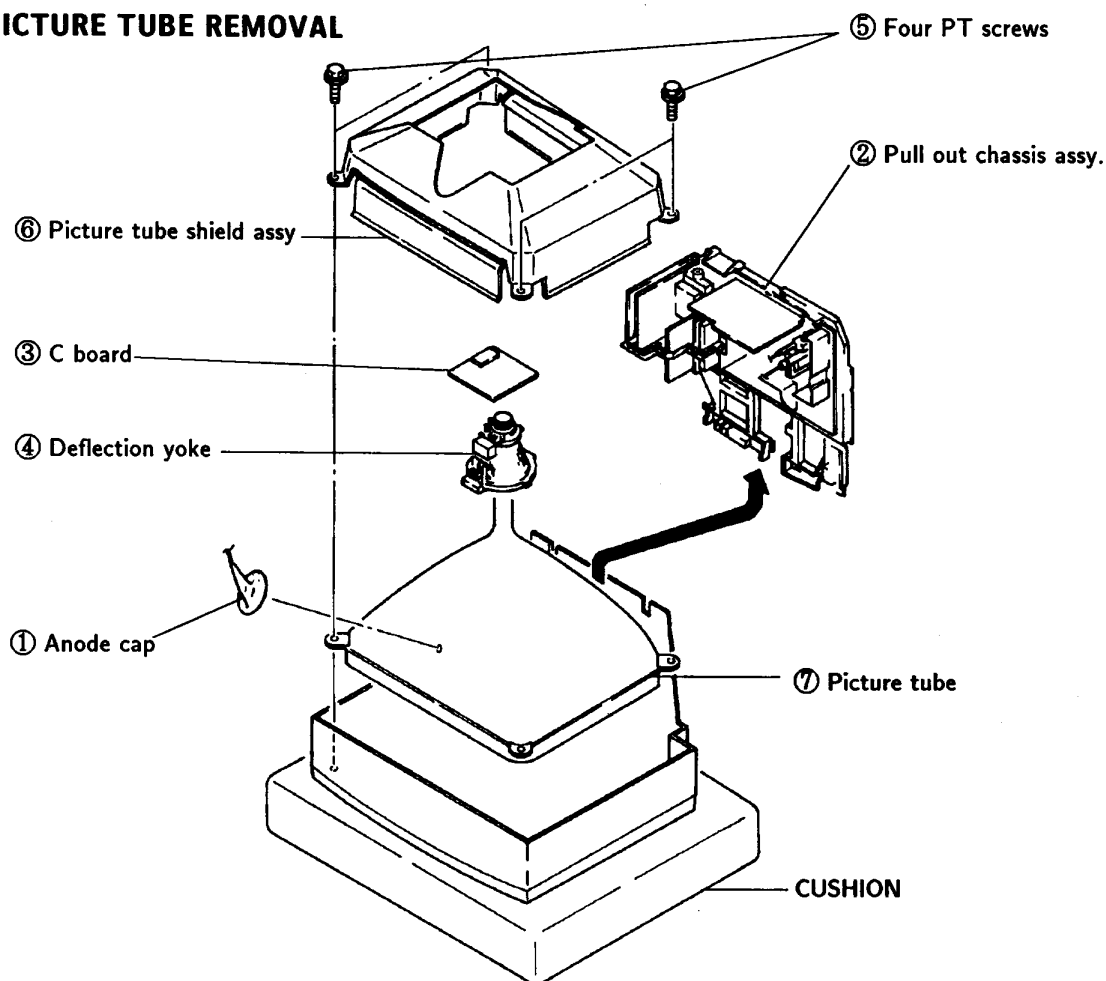


2-5. SERVICE POSITION

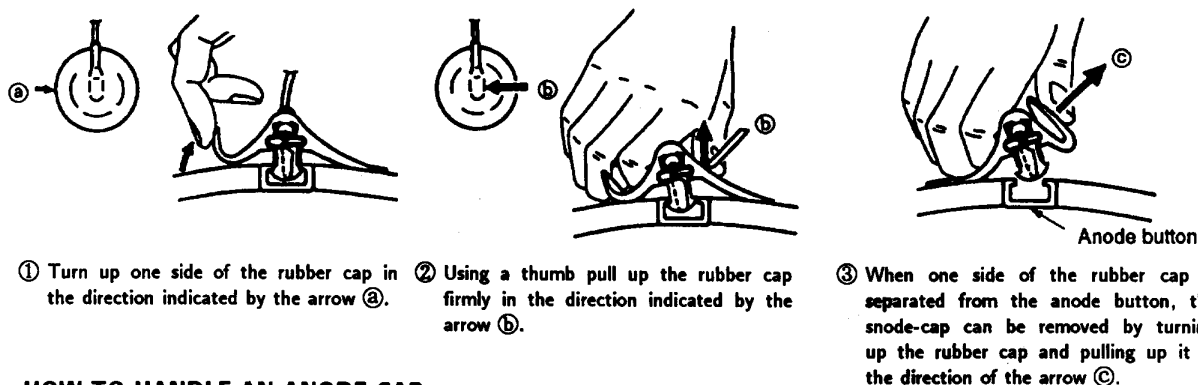
* Remove the connector bracket and then perform the following servicing.
(Refer to 2-2. CHASSIS ASSEMBLY REMOVAL.)



2-6. PICTURE TUBE REMOVAL

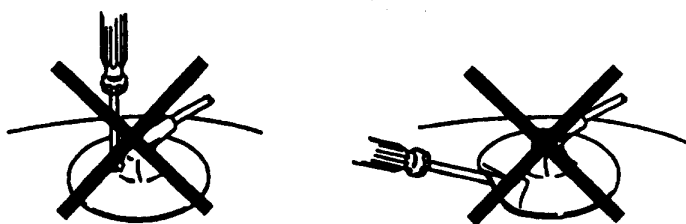


• REMOVAL OF ANODE-CAP • REMOVING PROCEDURES



• HOW TO HANDLE AN ANODE-CAP

- ① Don't hurt the surface of anode-caps with sharp shaped material!
- ② Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.
- ③ Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.



SECTION 3 SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there is specific instruction to the contrary, carry out these adjustments with the rated power supply.
- Unless there is specific instruction to the contrary, set the controls and switches this way :
 - Contrast80%
(or remote control normal)
 - ⚙ Brightness50%

- Carry out the following adjustments in this order:

1. Beam landing
2. Convergence
3. Focus
4. White balance

Note : Testing equipment required

1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

Preparations :

- In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input the white signal with the pattern generator.
 Contrast } normal
 Brightness }
2. Set the pattern generator raster signal to red.
3. Move the deflection yoke to the rear and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side.
(See Figures 3-1 through 3-3.)
4. Move the deflection yoke forward and adjust so that entire screen is red. (See Figure 3-1.)
5. Switch the raster signal to blue, then to green and verify the condition.
6. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
7. If the beam does not land correctly in all the corners, use a magnet to adjust it.
(See Figure 3-4.)

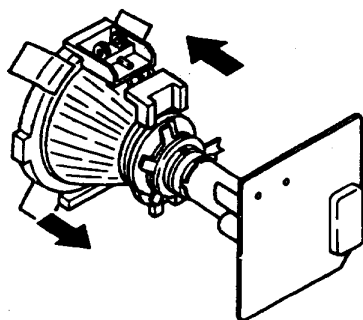


Fig. 3-1

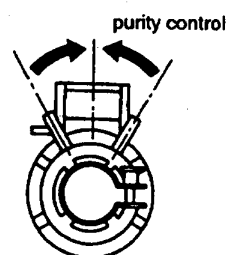


Fig. 3-2

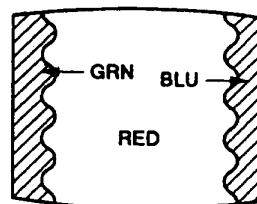


Fig. 3-3

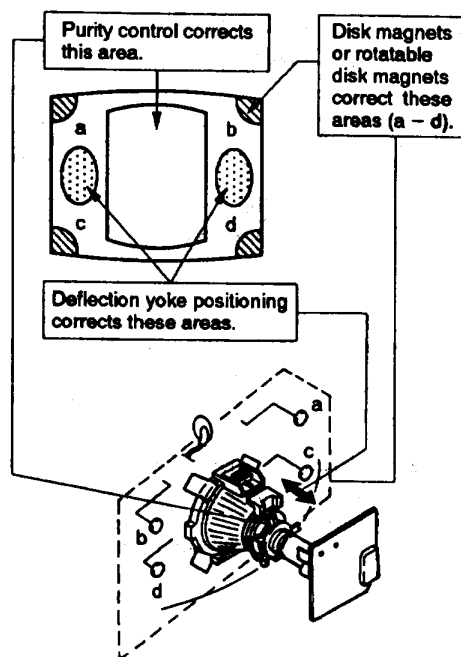


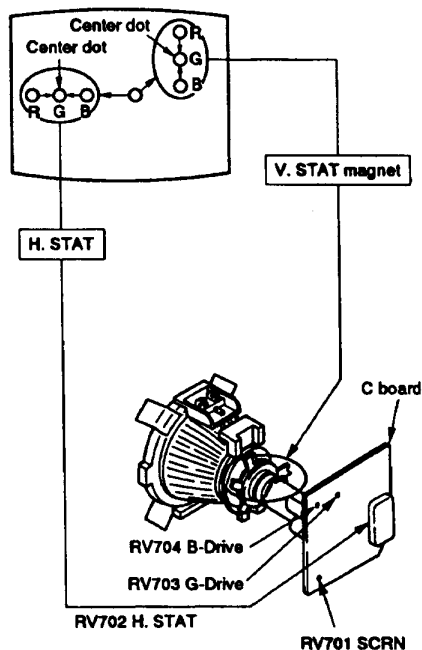
Fig. 3-4

3-2. CONVERGENCE

Preparations :

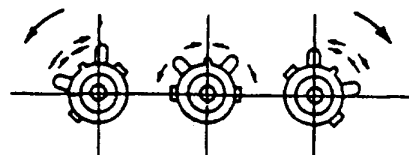
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

(1) Horizontal and vertical static convergence

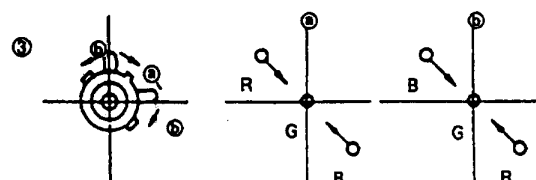
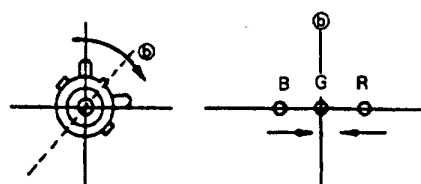
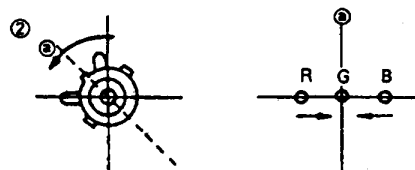
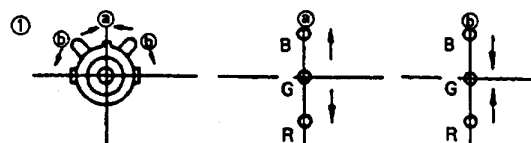


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor can not bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V. STAT magnet in the manner given below.
(In this case, the H.STAT variable resistor and the V. STAT magnet influence each other's settings.)

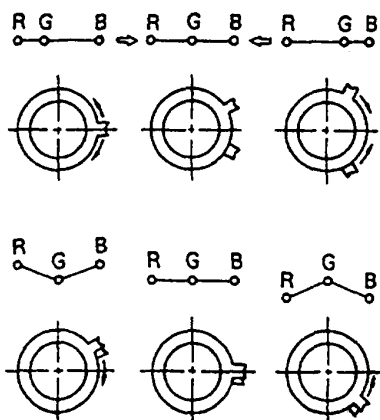
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



4. If the V.STAT magnet is moved in the direction of the ㉔ and ㉕ arrows, the red, green, and blue points move as shown below.

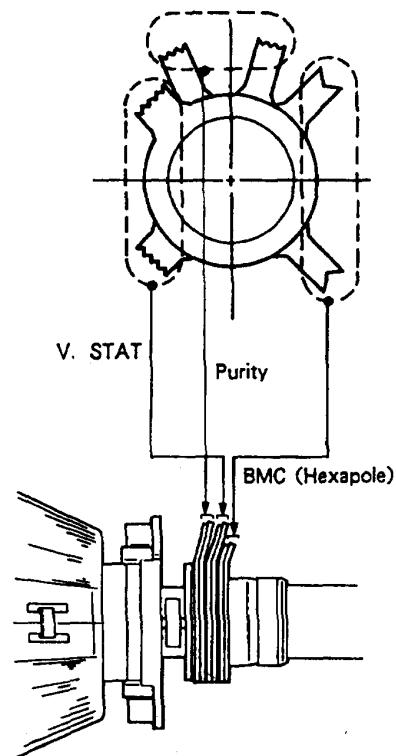


● Operation of BMC (Hexapole) Magnet



- The respective dot operations resulting from the operation of each magnet are not completely independent, so be sure to perform adjustment while tracking.

Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).



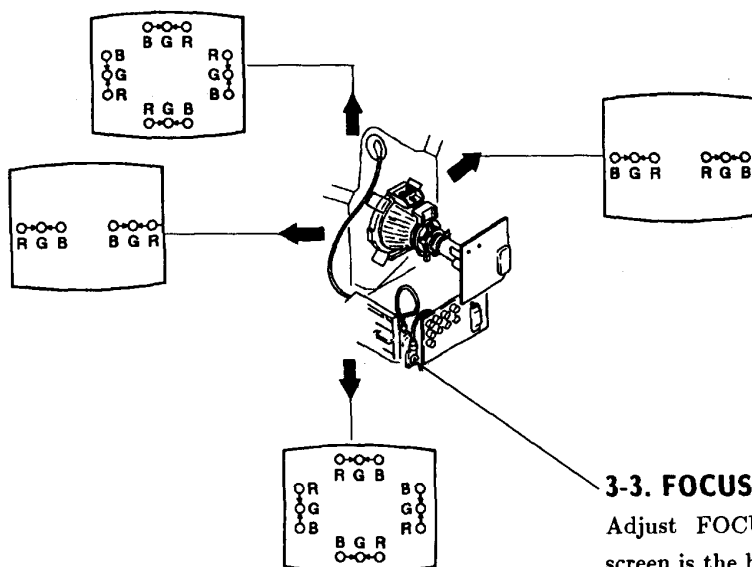
(2) Dynamic convergence adjustment

Preparations :

Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.

1. Slightly loosen the deflection yoke screws.
2. Remove the deflection yoke spacer.

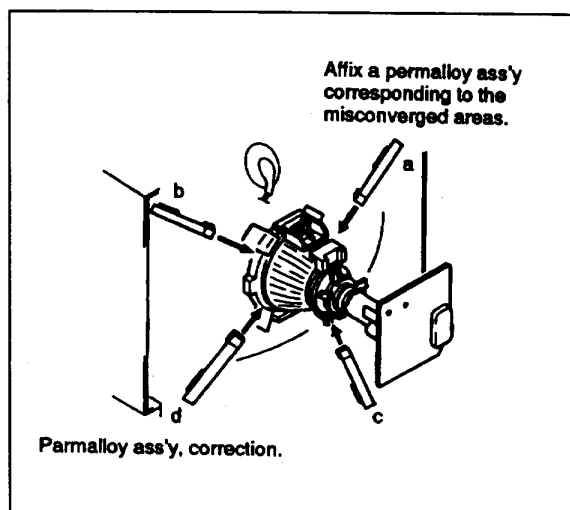
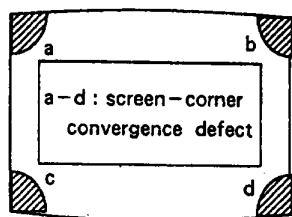
3. Move the deflection yoke as shown in the figure below and optimize the convergence.
4. Tighten the deflection yoke screws.
5. Install the deflection yoke spacer.



3-3. FOCUS

Adjust FOCUS so that the whole screen is the best focus.

(3) Screen corner convergence



3-4. WHITE BALANCE

[Screen G2 setting]

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 170V DC to the R, G, and B cathodes with an external power supply.
4. While watching the picture, adjust G2 control RV701 (Screen) to the point just before the return lines disappear.

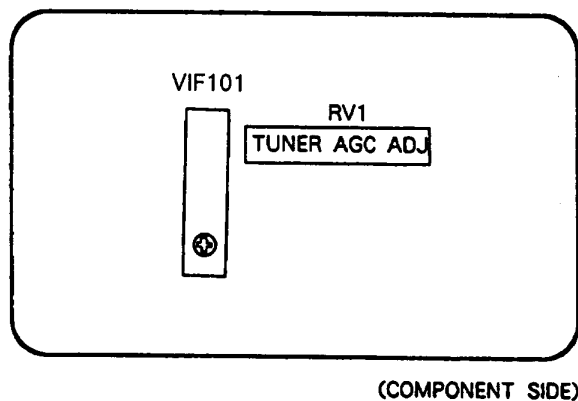
[White balance adjustment]

1. Input an all-white signal from the pattern generator.
2. Set the picture brightness and color controls to their normal levels.
3. Use the RV704 (B Drive) and RV703 (G Drive) to adjust white balance.

In the adjustments below, have the picture color and brightness settings at their normal levels unless there is a specific instruction to the contrary.

SECTION 4 CIRCUIT ADJUSTMENTS

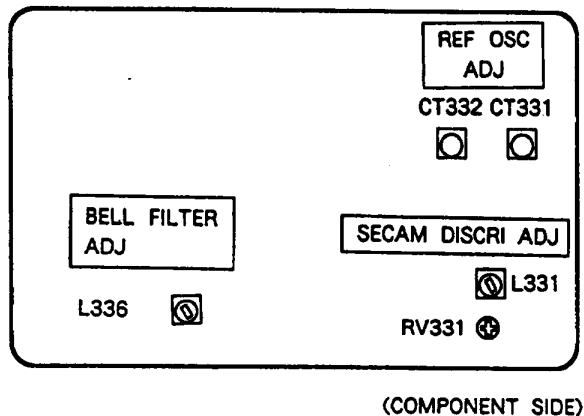
4-1. A BOARD ADJUSTMENT



TUNER AGC ADJUSTMENT (VIF101, RV1)

1. Align with an appropriate signal between stations.
2. Adjust RV1 so that snow noise and cross modulation just disappear from the picture.

4-2. B BOARD ADJUSTMENTS



REFERENCE OSCILLATOR ADJUSTMENT (CT332 8.8MHz)

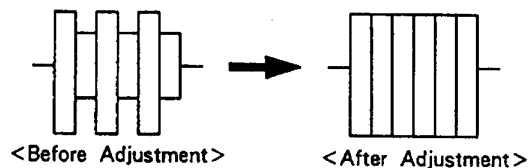
1. Input a PAL color bar signal.
2. Ground pin ⑦ of the IC331.
3. Adjust CT332 to obtain synchronization.

REFERENCE OSCILLATOR ADJUSTMENT (CT331 7.16MHz)

1. Input an NTSC color bar signal.
2. Ground pin ⑦ of IC331.
3. Adjust the CT331 to obtain synchronization.
4. Remove the jumper grounding pin ⑦ of IC331.

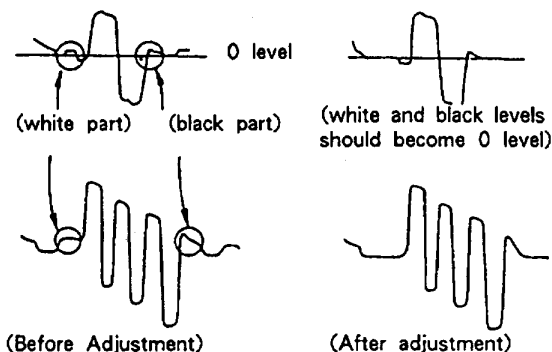
BELL FILTER ADJUSTMENT (L336)

1. Input a SECAM color bar signal.
2. Connect the oscilloscope to the emitter of Q335.
3. Adjust L336 so that the waveform is flat.

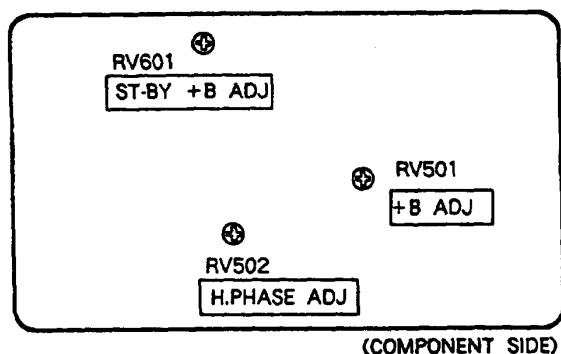


DISCRIMINATION ADJUSTMENT (RV331 and L331)

1. Input a SECAM color bar signal.
2. Connect the oscilloscope to pin ① of IC331.
3. Adjust RV331 so that the white and black sections of the waveform at pin ① come to the 0 level.
4. Connect the oscilloscope to pin ③ of IC331.
5. Adjust L331 so that the white and black sections of the waveform at pin ③ come to the 0 level.



4-3. D BOARD ADJUSTMENTS



+B ADJUSTMENT (RV501)

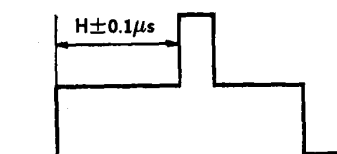
1. Connect the digital multimeter to TP91.
2. Adjust RV501 to obtain $135 \pm 0.2V$.

ST-BY +B ADJUSTMENT (RV601)

1. Put the system into ⏻ standby mode (remote commander).
2. Connect the digital multimeter to TP91.
3. Adjust RV601 to obtain $135 \pm 3V$.
4. Take the system out of ⏻ standby mode (remote commander).

H.PHASE ADJUSTMENT (RV502)

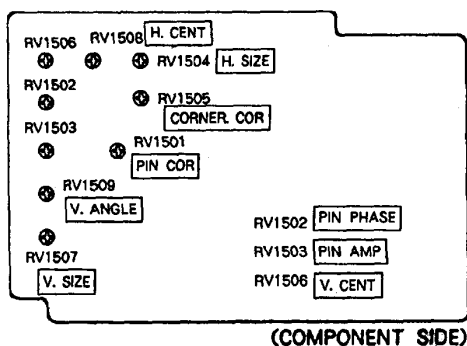
1. Input a PAL color bar signal.
2. Set the picture and brightness controls to their normal levels.
3. Set RV1508 (H.CENT) to its mechanical center.
4. Connect the oscilloscope to pin ⑪ (SCP) of IC 501.
5. Rotate RV502 to adjust to $H \pm 0.1\mu s$.
See below table for the H value.



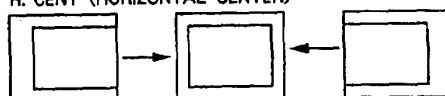
Standard of H.Phase

| Model Size | H |
|------------|------------|
| 21" | $5.6\mu s$ |
| 25" | $5.1\mu s$ |
| 29" | $5.5\mu s$ |

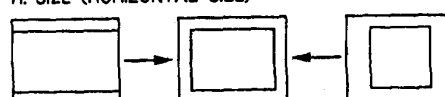
4-4. J1 BOARD ADJUSTMENTS



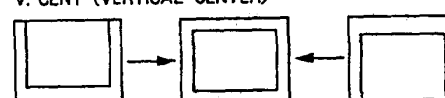
RV1508 H. CENT (HORIZONTAL CENTER)



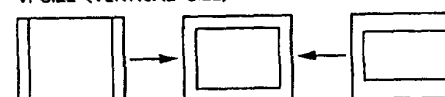
RV1504 H. SIZE (HORIZONTAL SIZE)



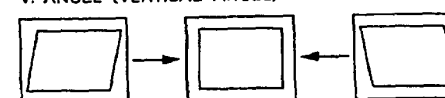
RV1506 V. CENT (VERTICAL CENTER)



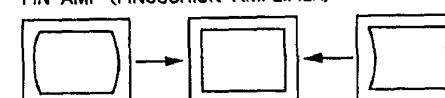
RV1507 V. SIZE (VERTICAL SIZE)



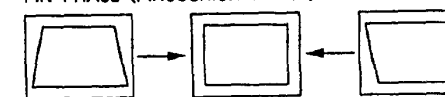
RV1509 V. ANGLE (VERTICAL ANGLE)



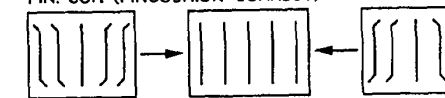
RV1503 PIN AMP (PINCUSHION AMPLIFIER)



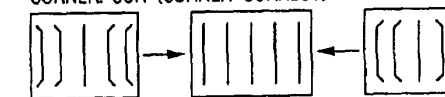
RV1502 PIN PHASE (PINCUSHION PHASE)



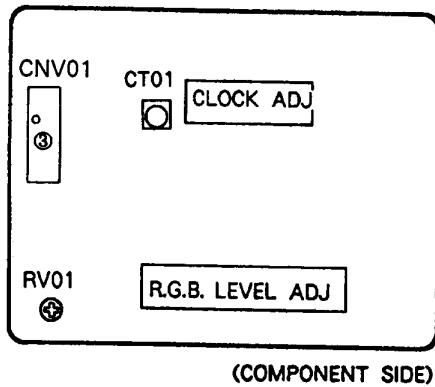
RV1501 PIN. COR (PINCUSHION CORRECT)



RV1505 CORNER COR (CORNER CORRECT)



4-5. V BOARD ADJUSTMENTS



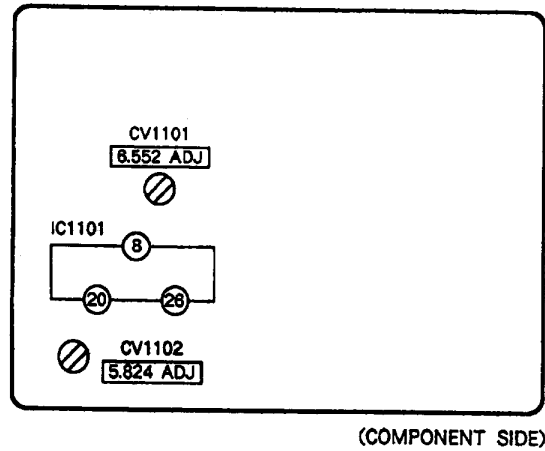
CLOCK ADJUSTMENT (CT01)

1. Remove the pin ③ of V-01 connector.
2. Put the system into text mode.
3. Adjust CT01 so that the picture does not move.

RGB LEVEL ADJUSTMENT (RV01)

1. Maximize the picture setting.
2. Adjust RV01 so that the RGB output is 0.75V.

4-6. A1 BOARD ADJUSTMENTS



6.552MHz (CARRIER Freq) Adjustment (CV1101)

1. Tune in NICAM signal.
 2. Connect the frequency counter to pin ⑧ of IC1101.
 3. Adjust CV1101 so that frequency becomes $6.552\text{MHz} \pm 30\text{Hz}$.
- Confirmation
Connect X input of oscilloscope to IC1101 pin ⑲, and Y to pin ⑳. Confirm waveform by X-Y mode. Confirm that waveform as OK in Fig observed clearly and without tilt.

5.824MHz (Clock Freq) Adjustment (CV1102)

1. Tune in a NICAM signal.
2. Connect the frequency counter to pin ⑳ of IC1101.
3. Adjust CV1102 so that frequency becomes $5.824\text{MHz} \pm 30\text{Hz}$.



4-7. SECONDARY ADJUSTMENT

SUB BRIGHTNESS ADJUSTMENT

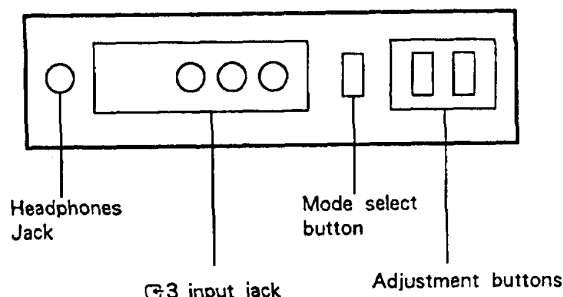
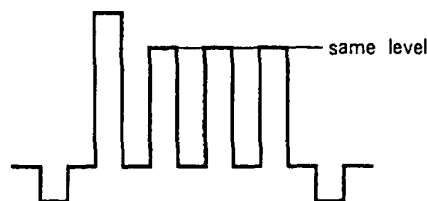
1. Set the system to receive a test pattern.
 2. Press $\rightarrow \cdot \leftarrow$ on the remote commander to put the system into normal mode.
 3. Switch off the power.
 4. While depressing the adjusting buttons + and - simultaneously, turn on the power. (SUB mode is obtained)
 5. Minimize the \bullet contrast setting.
 6. Adjust the \odot brightness control so that the gray scale 0 IRE section is cut off completely and the 20 IRE section is barely glowing.
 7. Depress the \diamond (store) button of the remote commander. (SUB mode is released)
- (SUB mode is released)

If there is no test color pattern

1. Set the system to receive a color pattern.
2. Press on the remote commander to put system into normal mode.
- Set the \oplus color to its normal state.
- 3-5. are the same as above.
6. Since 20 IRE is nearly blue, adjust the \odot brightness control so that the blue barely glows.
7. is the same as above.
8. Press $\rightarrow \cdot \leftarrow$ on the remote commander to put the system into normal mode.

SUB COLOR ADJUSTMENT

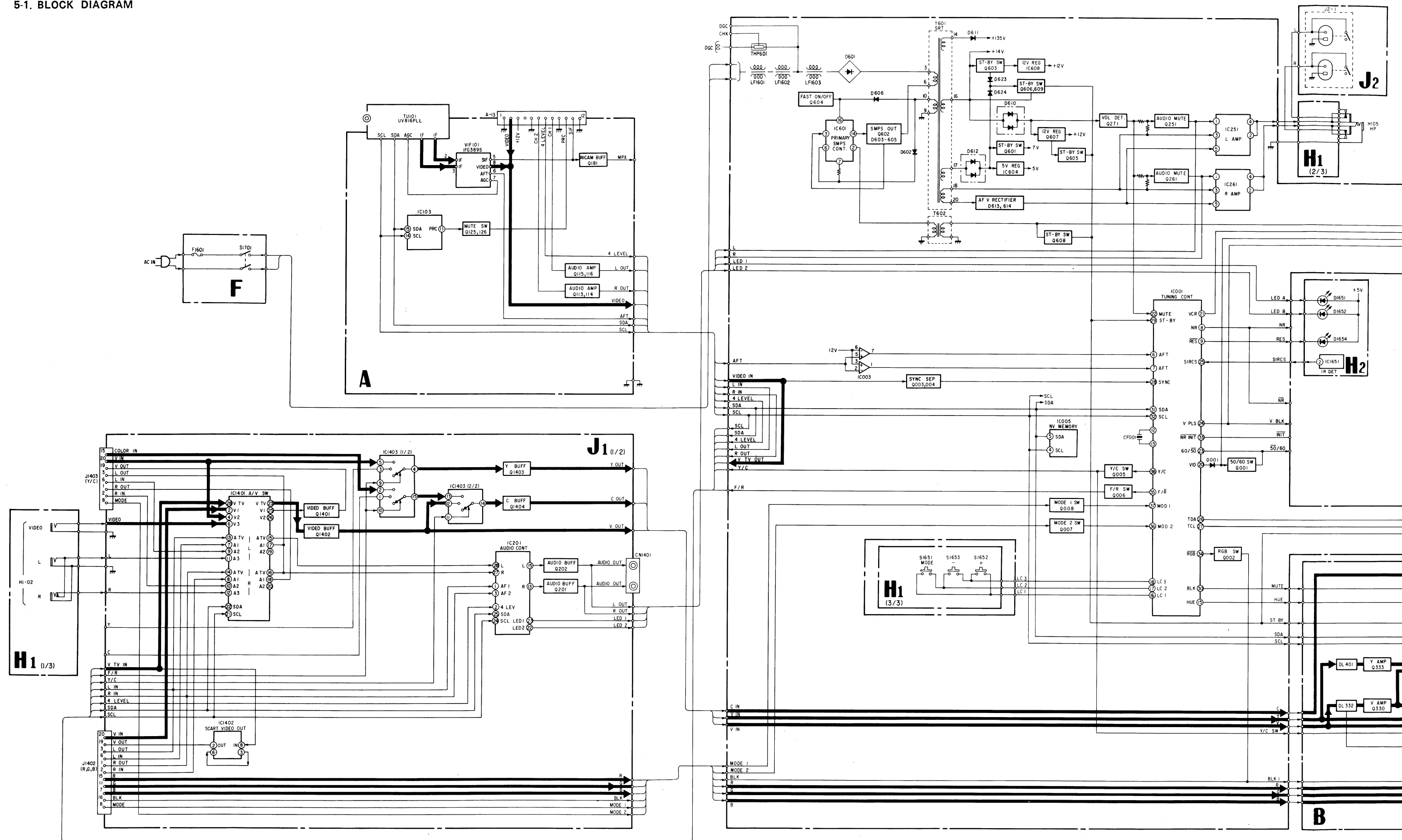
1. Set the system to receive color bars.
2. Press $\rightarrow \cdot \leftarrow$ on the remote commander to put the system into normal mode.
3. Cut off the power.
4. While depressing the adjustment buttons + and - simultaneously, turn on the power. (SUB mode is obtained)
5. Adjust the color control so that the B out waveform (pin ② of C board connector CNC72) is as shown in the figure below.
6. Depress the \diamond (store) button of the remote commander. (SUB mode is released)

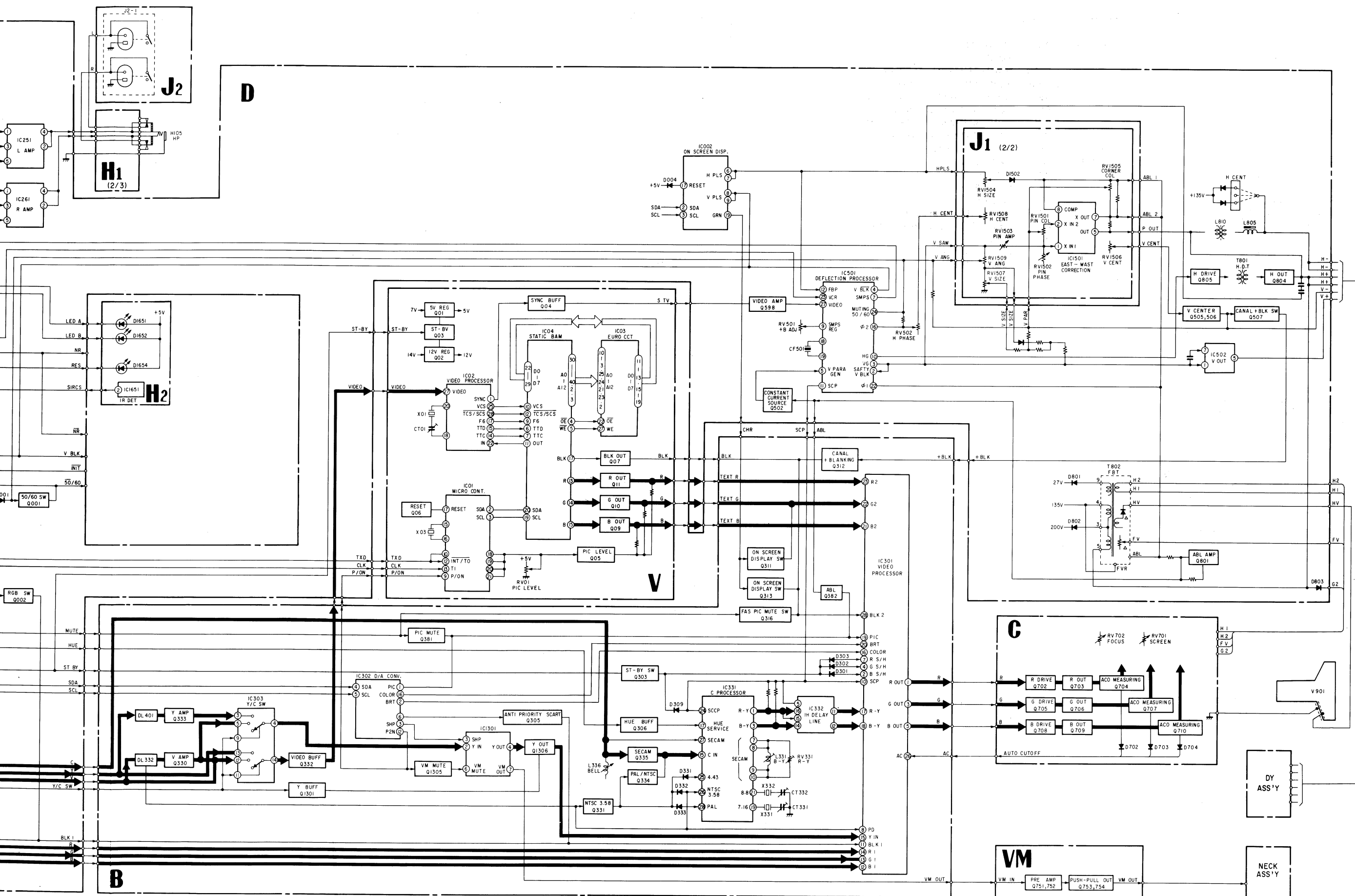


MEMO

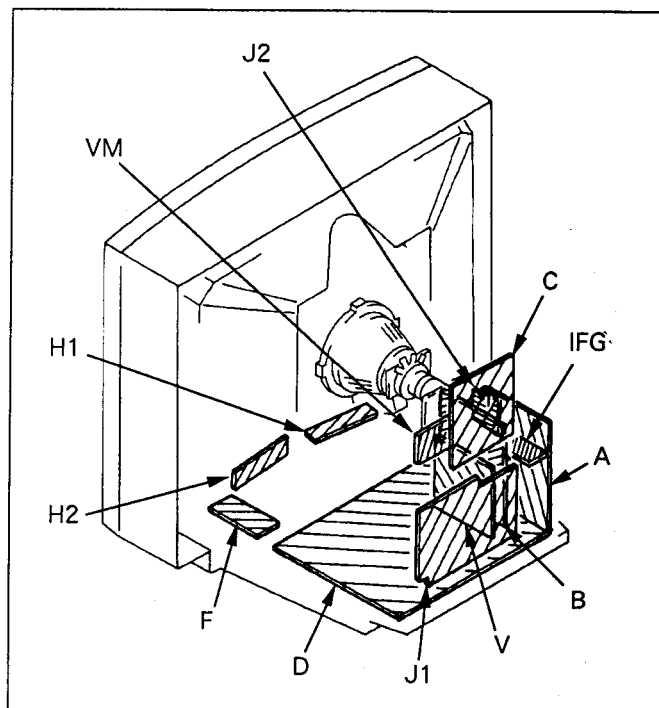
SECTION 5 DIAGRAMS


5-1. BLOCK DIAGRAM





5-2. CIRCUIT BOARDS LOCATION








Note: The components identified by shading and mark  are critical for safety. Replace only with part number specified.

Note :

- All capacitors are in μF unless otherwise noted.
pF : $\mu\mu\text{F}$ 50WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5mm

Rating electrical power : 1/4W

- Chip resistor is in 1/10W.
- All resistors are in ohms. $k\Omega = 1000\Omega$, $M\Omega = 1000k\Omega$
-  : nonflammable resistor.
-  : fusible resistor.
- Δ : internal component.
-  : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in V.
- Readings are taken with a $10M\Omega$ digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
-  : B + line.
-  : signal path.

Reference information

| | | |
|-----------|---------|--------------------------|
| RESISTOR | : RN | METAL FILM |
| | : RC | SOLID |
| | : FPRD | NONFLAMMABLE CARBON |
| | : FUSE | NONFLAMMABLE FUSIBLE |
| | : RS | NONFLAMMABLE METAL OXIDE |
| | : RB | NONFLAMMABLE CEMENT |
| | : RW | NONFLAMMABLE WIREWOUND |
| | : * | ADJUSTMENT RESISTOR |
| COIL | : LF-BL | MICRO INDUCTOR |
| CAPACITOR | : TA | TANTALUM |
| | : PS | STYROL |
| | : PP | POLYPROPYLENE |
| | : PT | MYLAR |
| | : MPS | METALIZED POLYESTER |
| | : MPP | METALIZED POLYPROPYLENE |
| | : ALB | BIPOLAR |
| | : ALT | HIGH TEMPERATURE |
| | : ALR | HIGH RIPPLE |

H1

CONTROL SW,
AV INPUT,
HEADPHONE

H2

SIRCS RECEIVER,
INDICATOR

F

AC IN,
POWER SW

SPEAKER
TERMINAL

J2

TUNER,
SIF, VIF

A

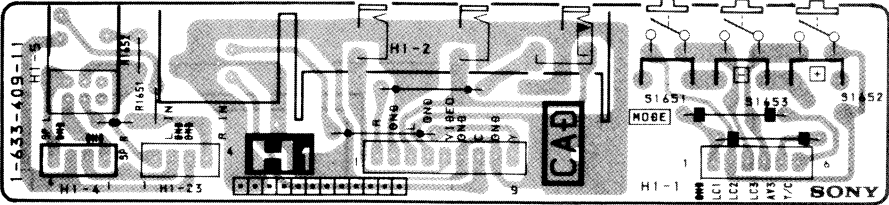
J1

AU
Y/
EA

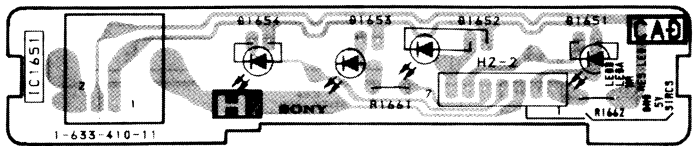
5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

— Conductor Side —

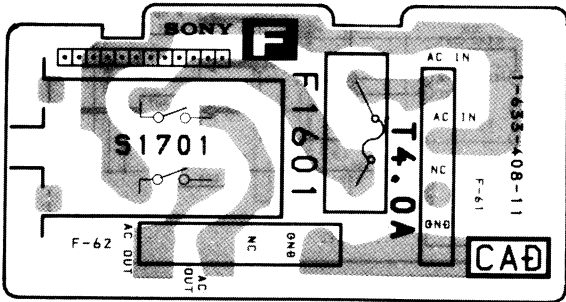
— H1 Board —



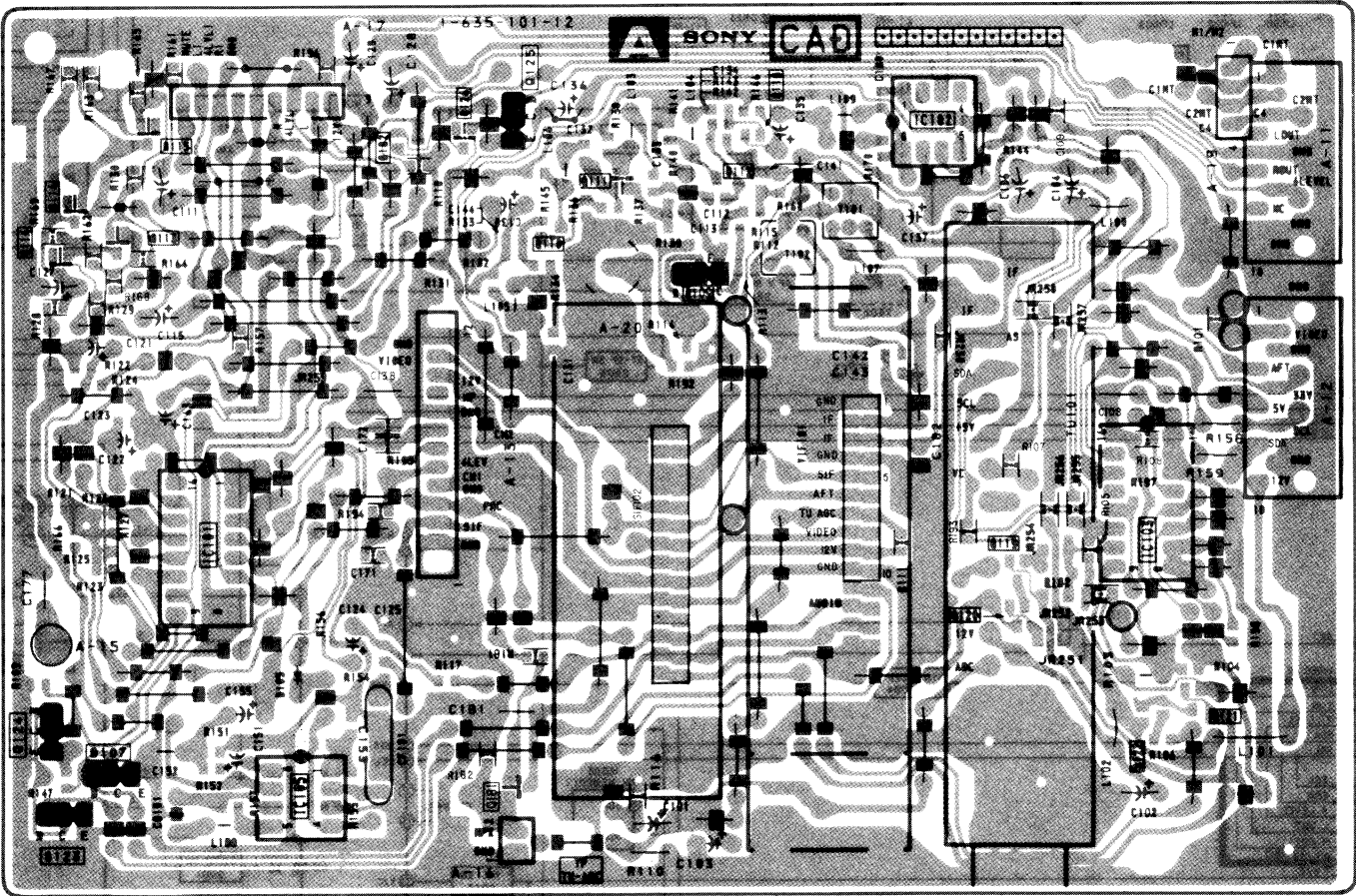
— H2 Board —



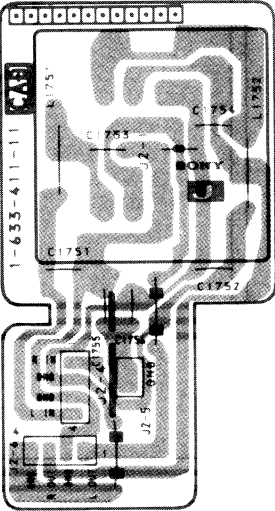
— F Board —



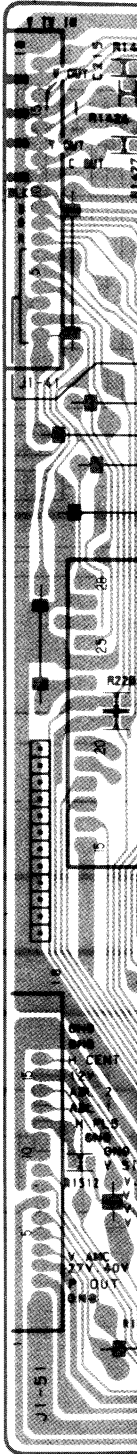
— A Board —



— J2 Board —



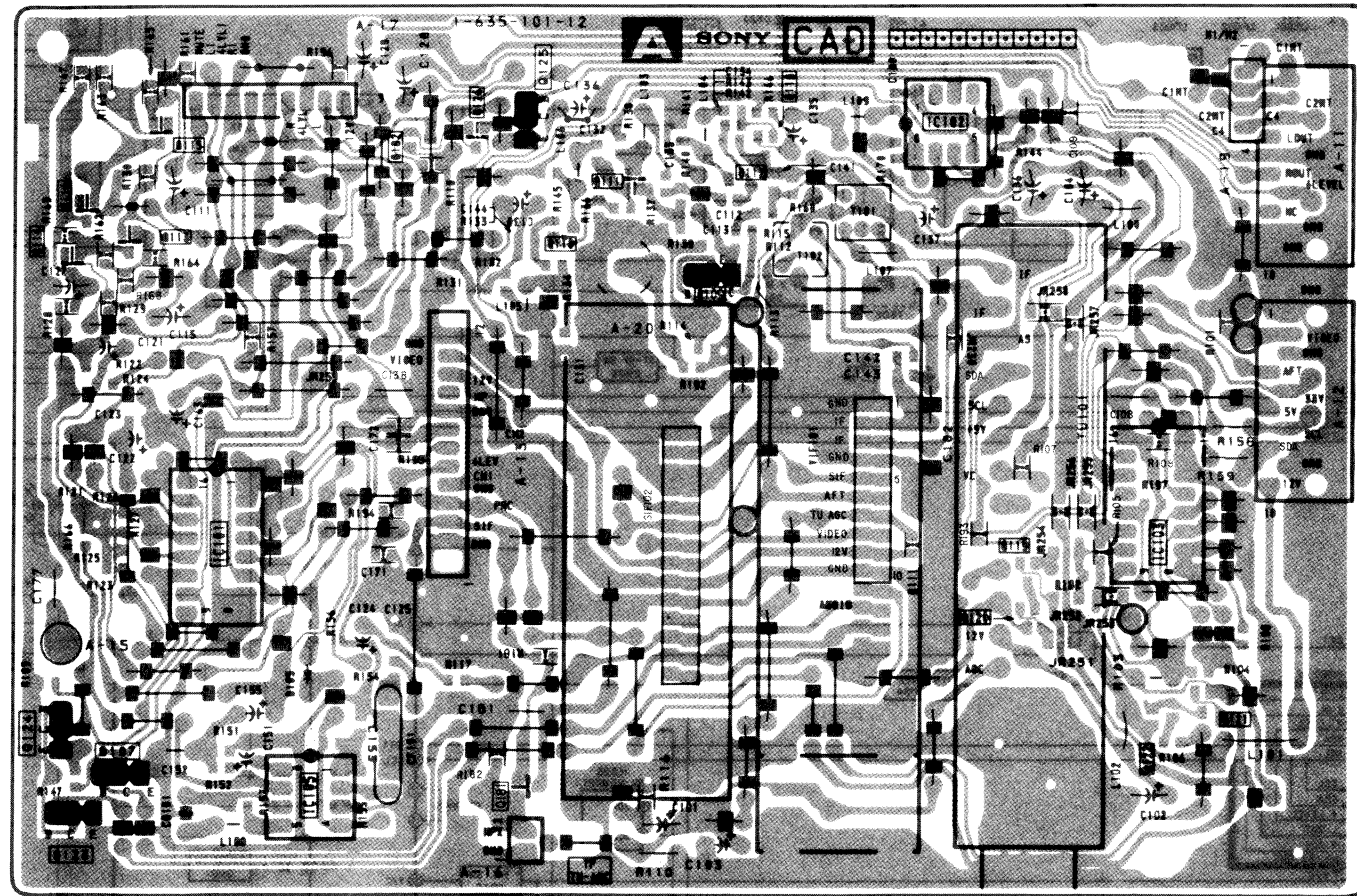
— J1 Board —



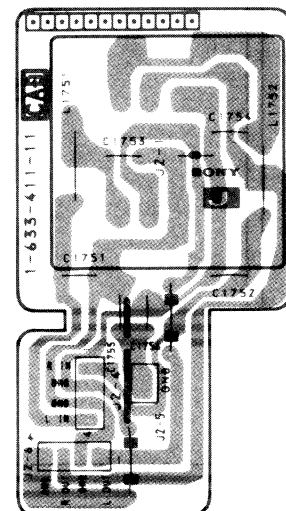
[SPEAKER
TERMINAL] **J2** [TUNER,
SIF, VIF] **A**

J1 [AUDIO CONTROL, AV INPUT,
Y/C INPUT, SCART VIDEO OUT,
EAST-WEST CORRECTION]

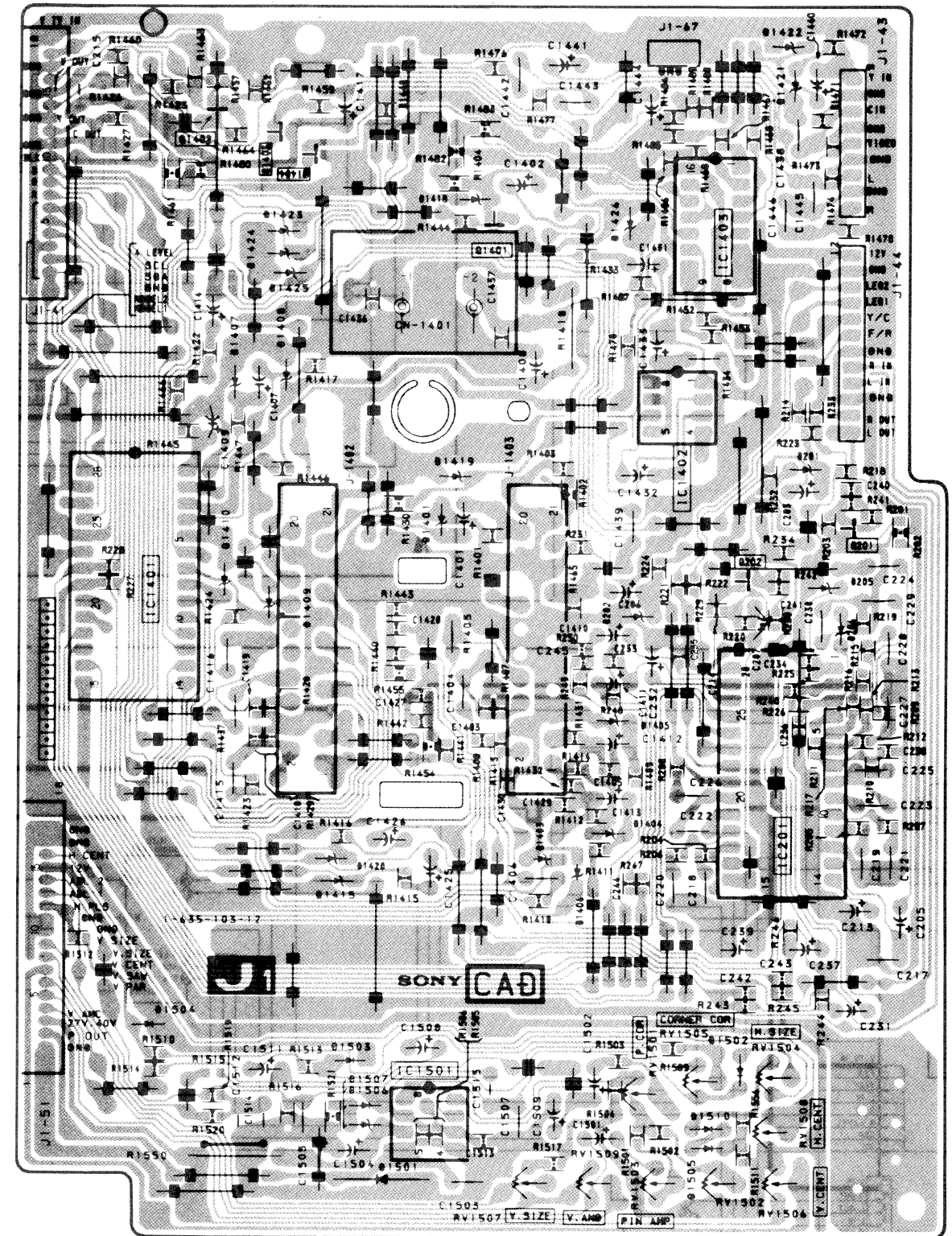
—A Board—



—J2 Board—

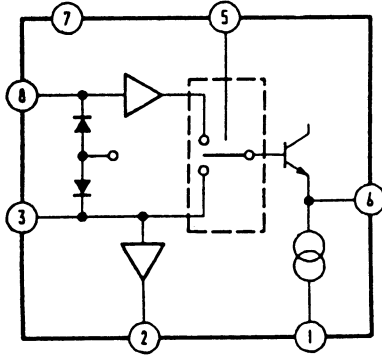


—J1 Board—

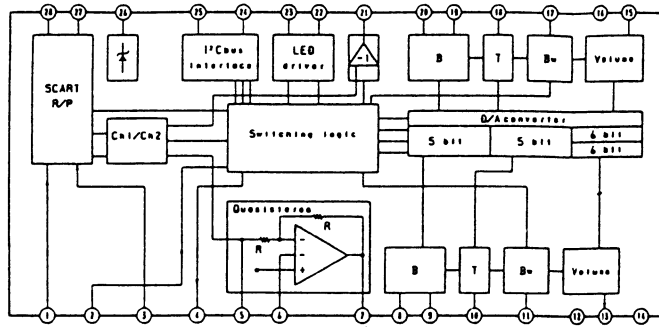


A
B
C
D
E
F
G
H
I
J
K
L
M
N
O

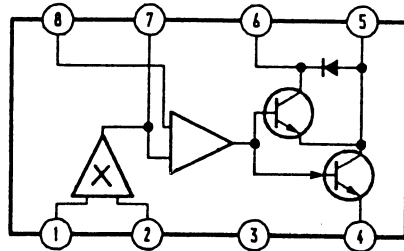
J1 BOARD IC1402 TEA2014A



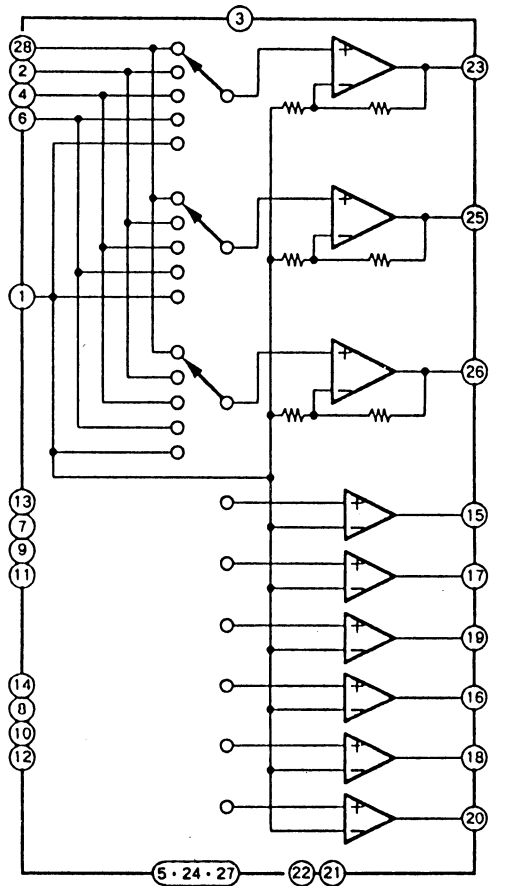
J1 BOARD IC201 TDA6200



J1 BOARD IC1501 TEA2031

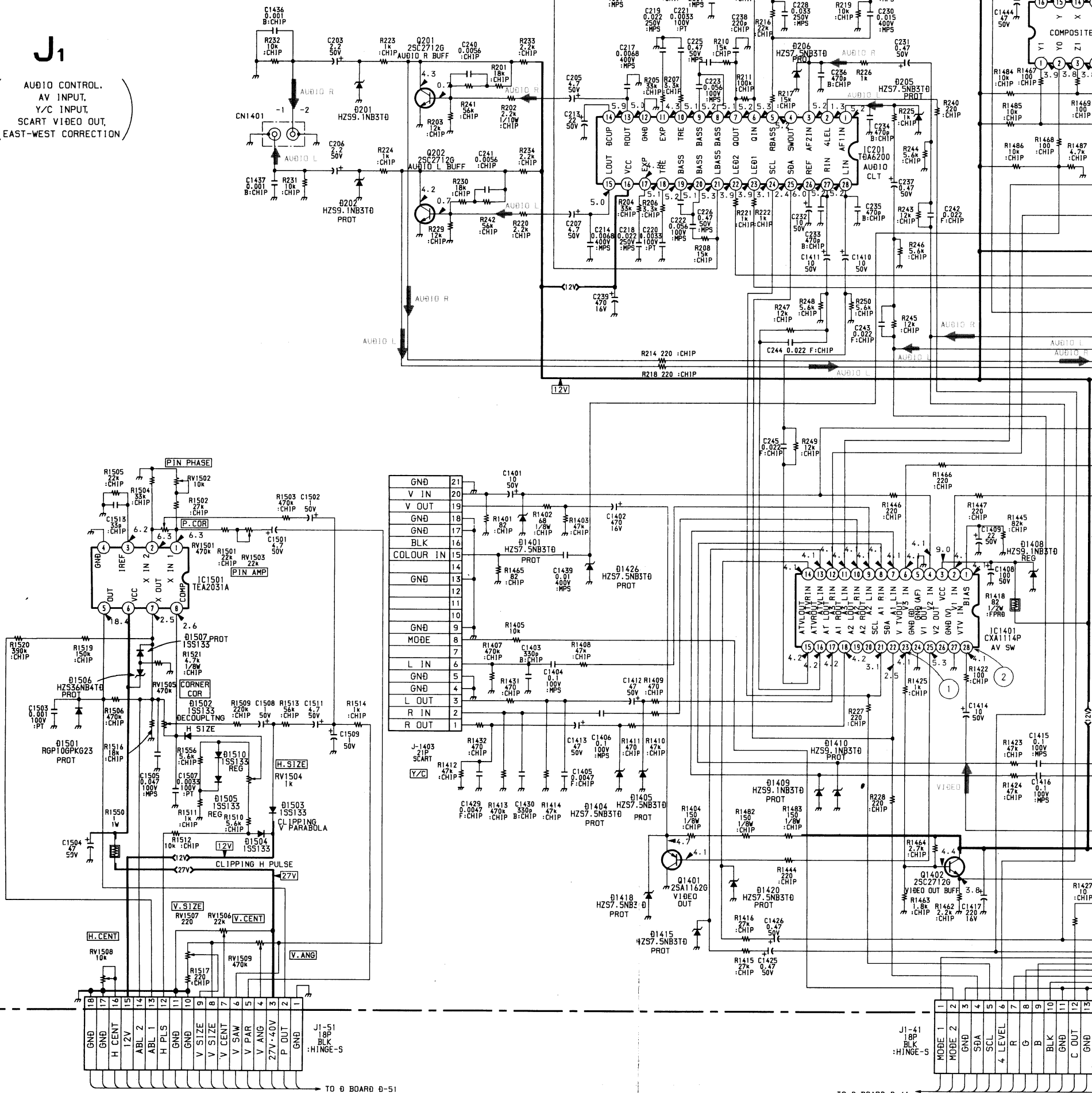


J1 BOARD IC1401 CXA1114P

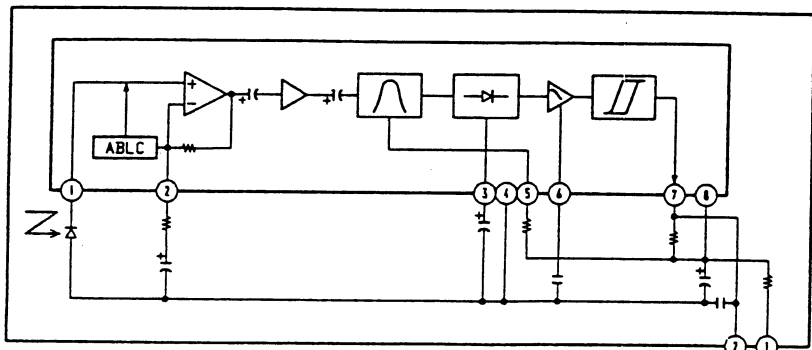


J1

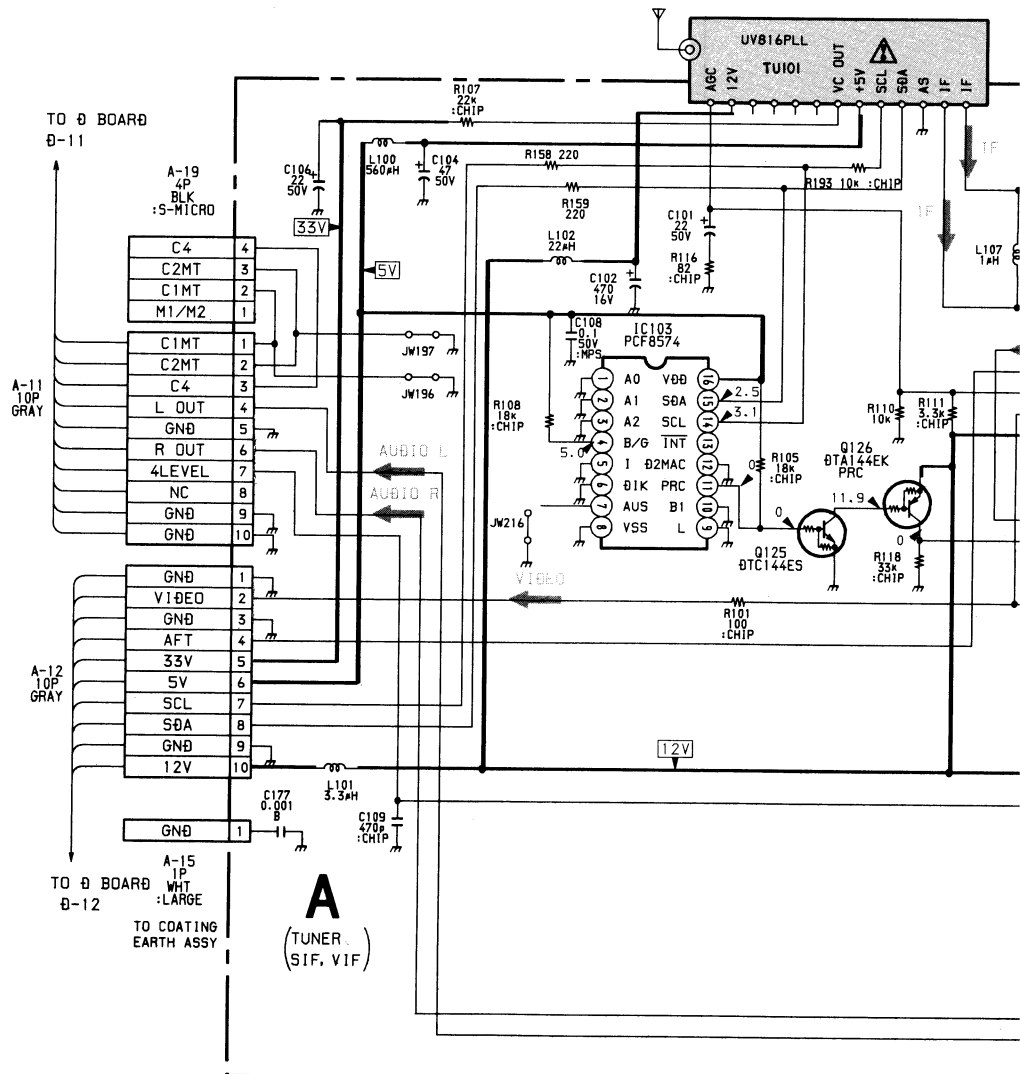
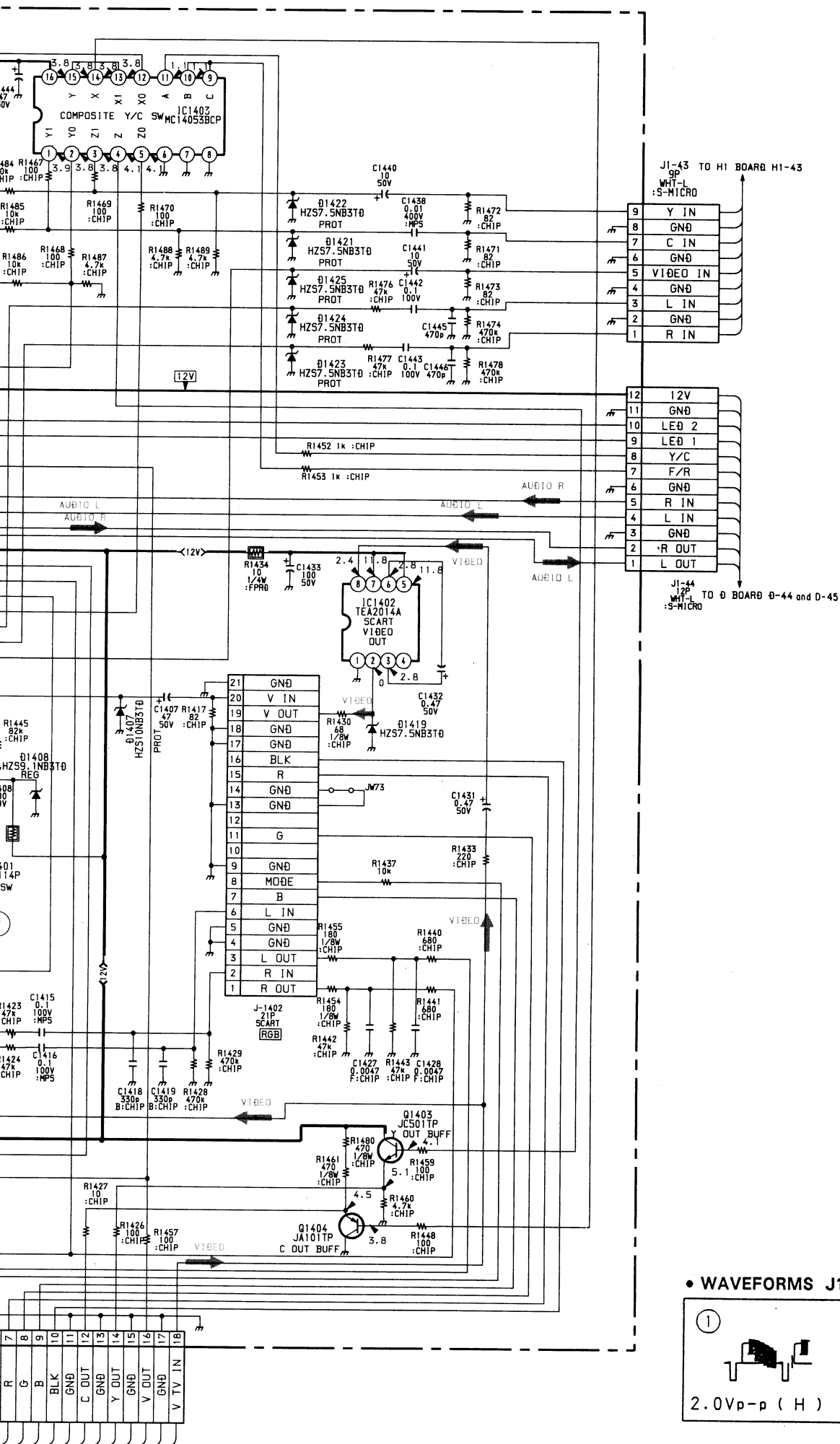
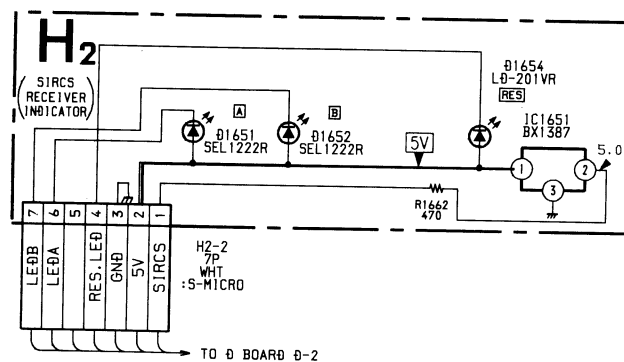
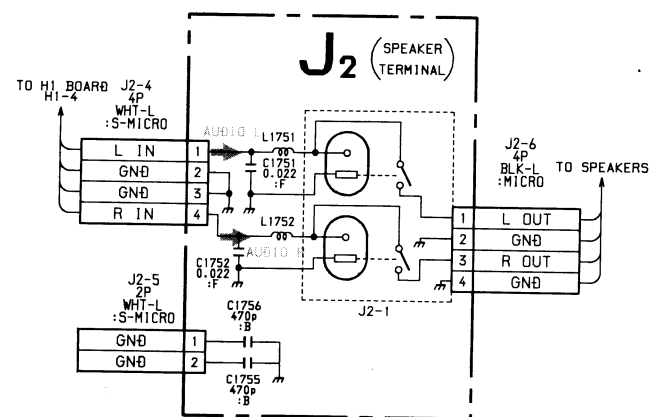
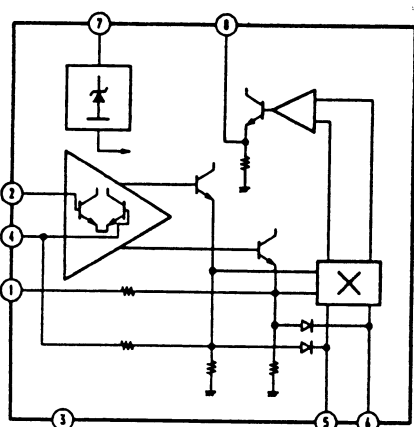
AUDIO CONTROL.
AV INPUT.
Y/C INPUT.
SCART VIDEO OUT.
EAST-WEST CORRECTION



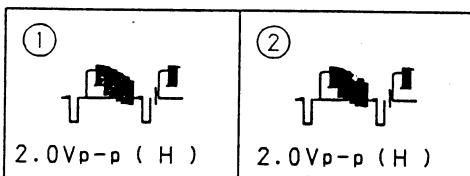
H2 BOARD IC1651 BA1387



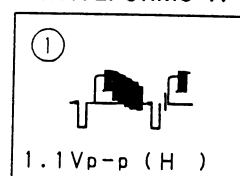
A BOARD IC105 TBA129



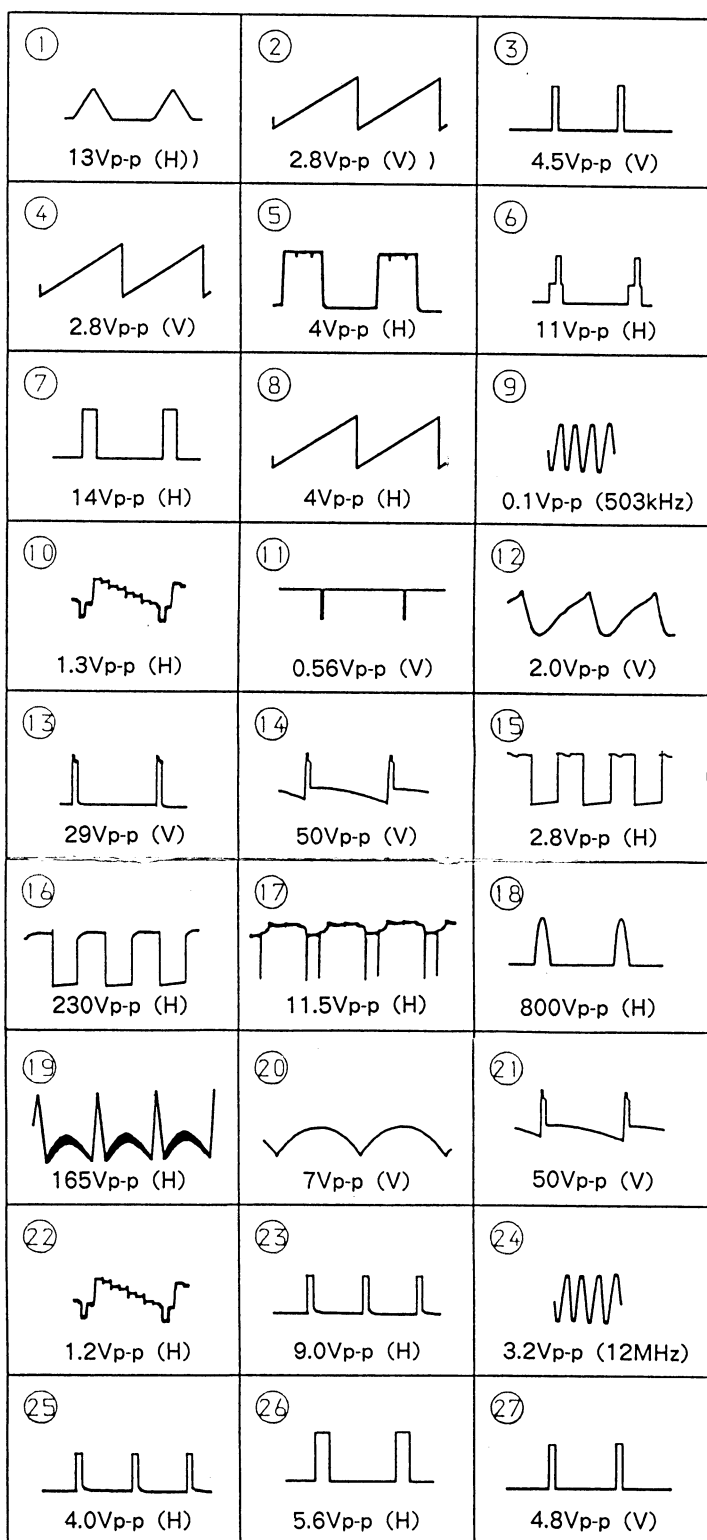
• WAVEFORMS J1 BOARD



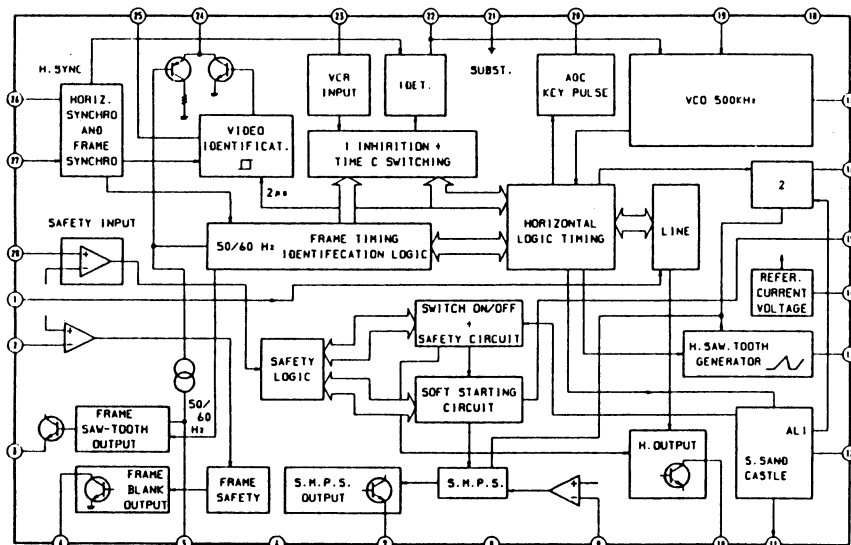
• WAVEFORMS A BOARD



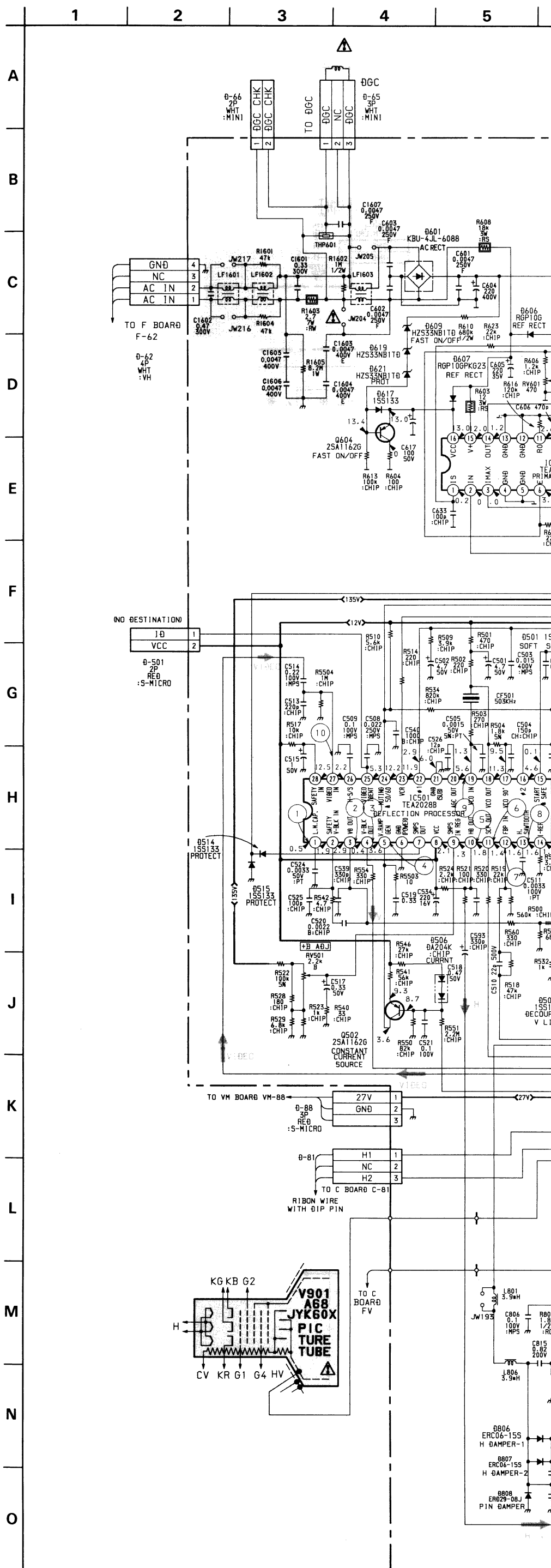
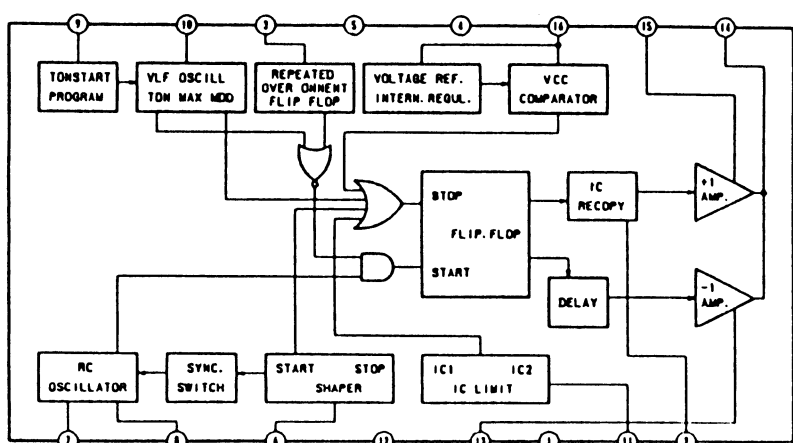
• WAVEFORMS D BOARD

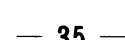


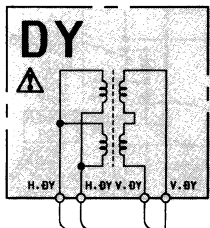
D BOARD IC501 TEA2028B



D BOARD IC601 TEA2260







A

B

C

D

E

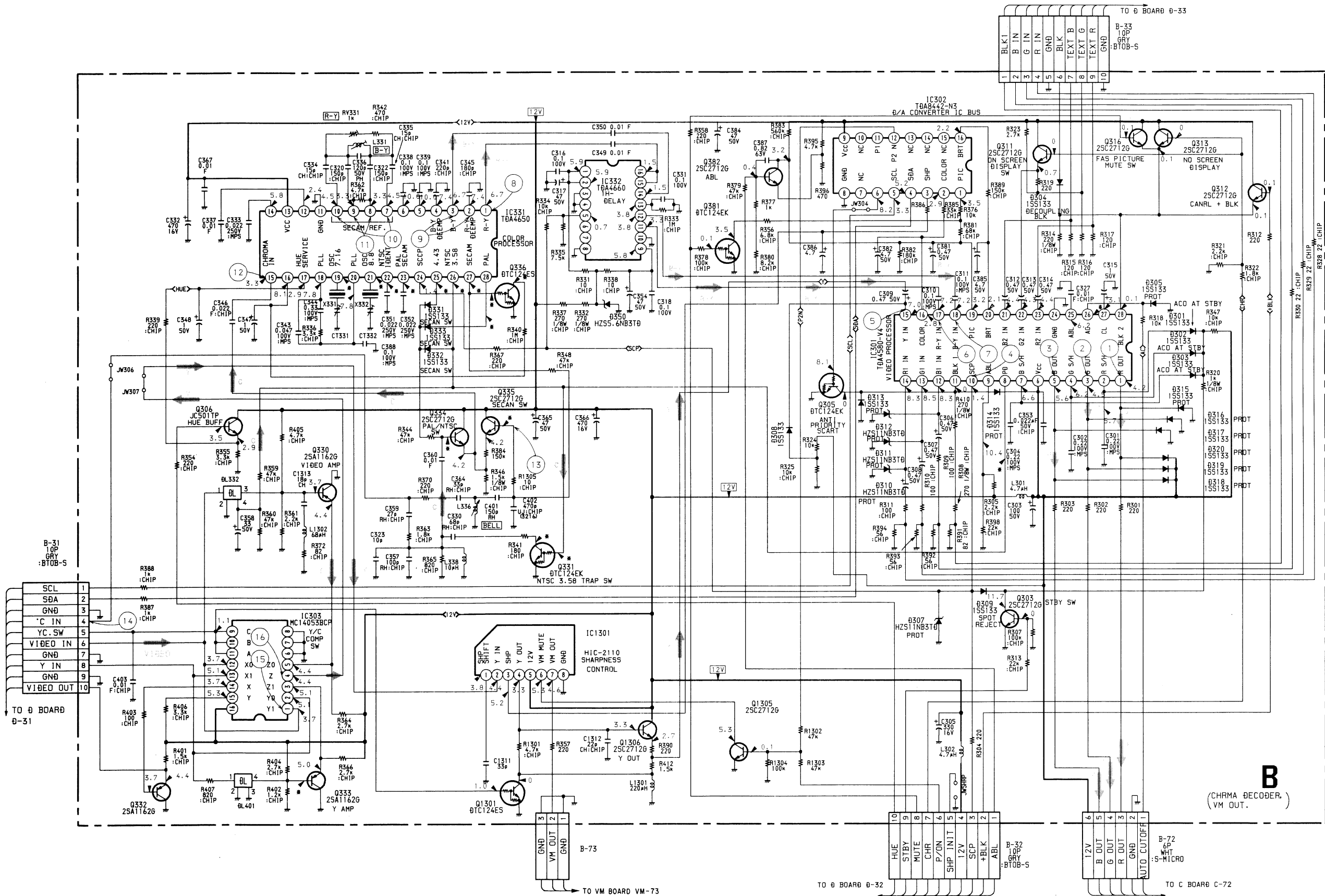
F

G

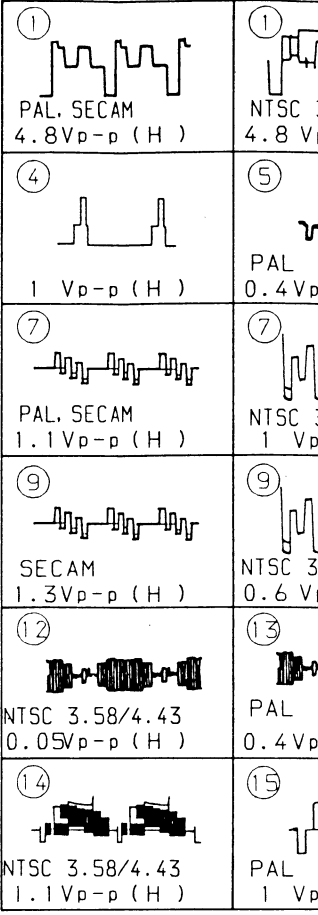
H

I

J



• WAVEFORMS B BOARD



As to the voltage value shown by mark ※ on the Schematic Diagram, the another list.

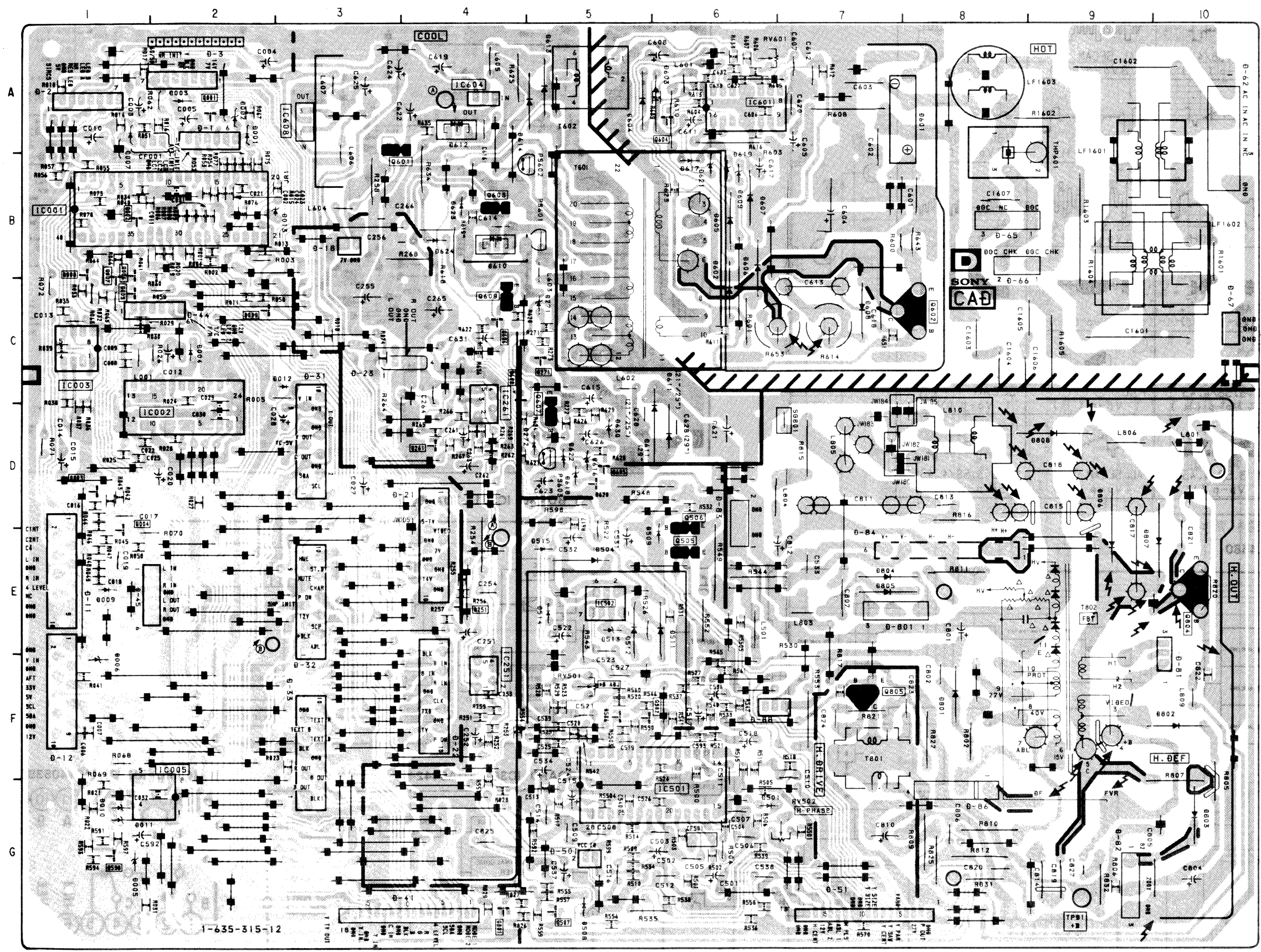
| | | PAL | SECAM | NTSC3.58 | NTSC4.43 |
|-------|-----|-----|-------|----------|----------|
| IC301 | (A) | 0.1 | 0.1 | 5.8 | 0.1 |
| | (B) | 6.7 | 6.8 | 5.1 | 5.1 |
| IC331 | (A) | 3.1 | 3.6 | 3.1 | 2.8 |
| | (B) | 3.0 | 3.5 | 2.9 | 2.7 |
| | (C) | 5.6 | 5.6 | 7.1 | 7.2 |
| | (D) | 7.5 | 7.0 | 5.6 | 5.6 |
| | (E) | 0.1 | 0.1 | 0.1 | 5.8 |
| | (F) | 0.1 | 0.1 | 5.8 | 0.1 |
| | (G) | 0.1 | 5.8 | 0.1 | 0.1 |
| | (H) | 5.9 | 0.1 | 0.1 | 0.1 |
| Q331 | (A) | 0.1 | 0.1 | 5.8 | 0.1 |
| | (B) | 1.5 | 1.9 | 0 | 0.8 |
| Q333 | (A) | 3.4 | 4.4 | 4.4 | 4.4 |
| Q334 | (A) | 4.9 | 0.1 | 4.8 | 4.8 |
| Q335 | (A) | 0.1 | 4.8 | 0.1 | 0.1 |
| Q336 | (A) | 0.1 | 5.8 | 0.1 | 0.1 |
| | (B) | 7.3 | 0 | 7.3 | 7.3 |

TUNING CONTROL,
POWER CONTROL,
AUDIO OUT, H/V OUT

D

D

-D Board-

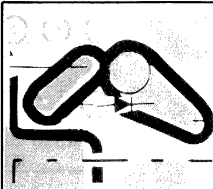


| IC | | D007 | A-1 |
|------------|------|-------------------|------|
| IC001 | B-2 | D009 | E-1 |
| IC002 | D-2 | D010 | G-1 |
| IC003 | C-1 | D011 | G-1 |
| IC005 | G-2 | D271 | C-5 |
| IC251 | F-4 | D272 | D-5 |
| IC261 | C-4 | D501 | G-6 |
| IC501 | G-6 | D504 | E-5 |
| IC502 | E-5 | D506 | E-6 |
| IC601 | A-6 | D508 | G-5 |
| IC604 | A-4 | D509 | D-6 |
| IC608 | A-3 | D511 | E-6 |
| | | D512 | E-5 |
| | | D513 | E-5 |
| | | D514 | E-5 |
| | | D515 | E-5 |
| TRANSISTOR | | D601 | A-8 |
| Q001 | A-2 | D602 | C-6 |
| Q002 | B-1 | D603 | A-6 |
| Q003 | D-1 | D604 | A-5 |
| Q004 | D-1 | D605 | B-6 |
| Q005 | C-1 | D606 | B-6 |
| Q006 | B-1 | D607 | B-6 |
| Q007 | C-1 | D608 | C-7 |
| Q008 | C-1 | D609 | B-6 |
| Q009 | C-2 | D610 | B-4 |
| Q251 | E-4 | D611 | D-6 |
| Q261 | D-4 | D612 | A-4 |
| Q271 | C-5 | D613 | A-5 |
| Q502 | F-6 | D614 | A-5 |
| Q505 | E-6 | D616 | D-5 |
| Q506 | E-6 | D617 | B-6 |
| Q507 | G-5 | D618 | D-5 |
| Q598 | G-1 | D619 | B-6 |
| Q601 | B-4 | D620 | D-5 |
| Q602 | C-8 | D621 | B-6 |
| Q603 | B-4 | D622 | D-5 |
| Q604 | A-6 | D623 | B-4 |
| Q605 | D-5 | D624 | B-4 |
| Q606 | C-4 | D630 | D-5 |
| Q607 | D-5 | D801 | F-8 |
| Q608 | C-4 | D802 | F-10 |
| Q609 | C-4 | D803 | G-10 |
| Q801 | G-4 | D804 | E-7 |
| Q804 | E-10 | D805 | E-7 |
| Q805 | F-7 | D806 | E-9 |
| | | D807 | E-10 |
| | | D808 | D-9 |
| DIODE | | VARIABLE RESISTOR | |
| D001 | A-2 | RV501 | F-5 |
| D002 | A-2 | RV502 | G-7 |
| D003 | A-2 | RV601 | A-6 |
| D004 | C-2 | | |
| D005 | G-1 | | |
| D006 | F-1 | | |

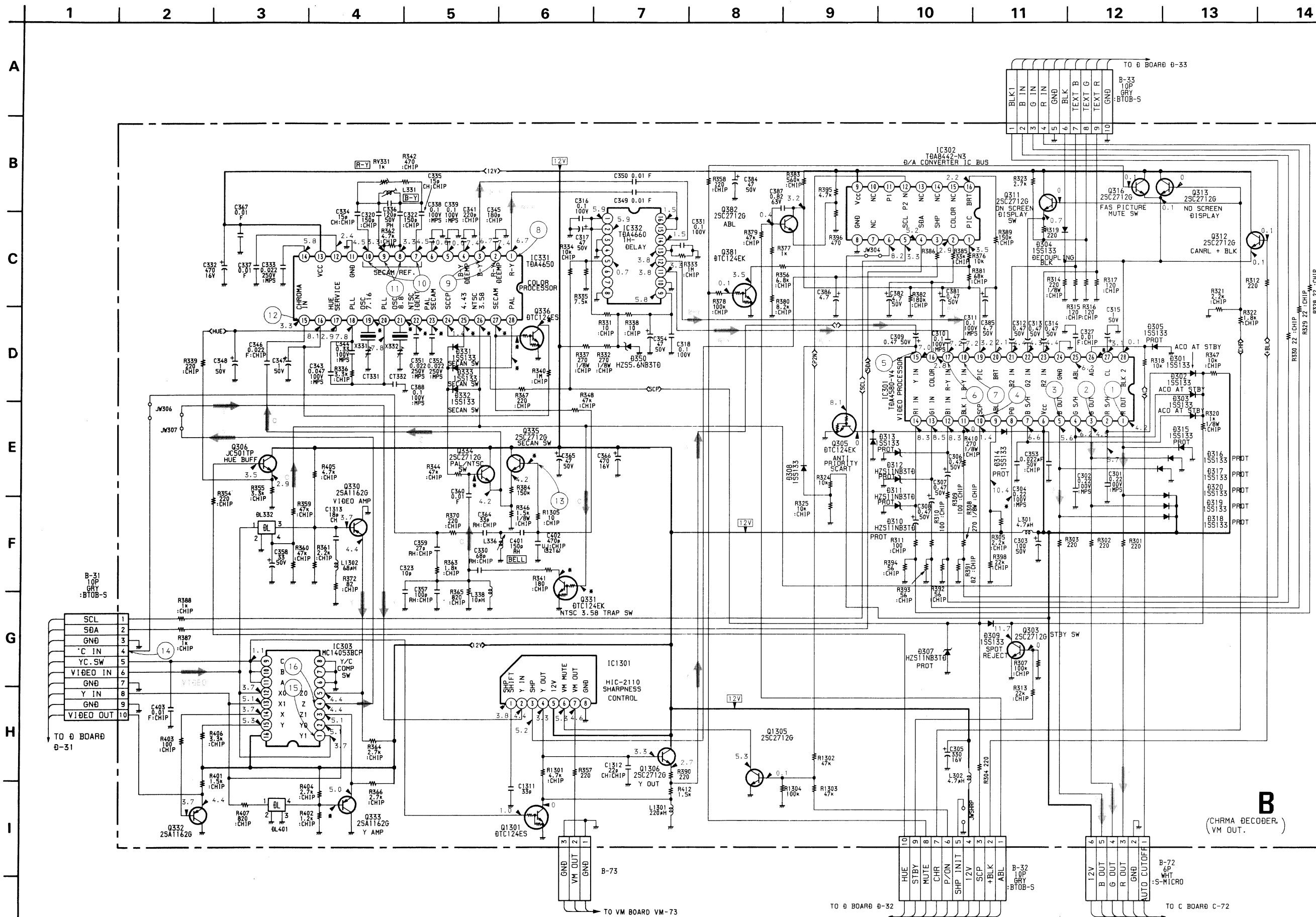
| | |
|----|------|
| 07 | A-1 |
| 09 | E-1 |
| 10 | G-1 |
| 11 | G-1 |
| 71 | C-5 |
| 72 | D-5 |
| 01 | G-6 |
| 04 | E-5 |
| 06 | E-6 |
| 08 | G-5 |
| 09 | D-6 |
| 11 | E-6 |
| 12 | E-5 |
| 13 | E-5 |
| 14 | E-5 |
| 15 | E-5 |
| 01 | A-8 |
| 02 | C-6 |
| 03 | A-6 |
| 04 | A-5 |
| 05 | B-6 |
| 06 | B-6 |
| 07 | B-6 |
| 08 | C-7 |
| 09 | B-6 |
| 10 | B-4 |
| 11 | D-6 |
| 12 | A-4 |
| 13 | A-5 |
| 14 | A-5 |
| 16 | D-5 |
| 17 | B-6 |
| 18 | D-5 |
| 19 | B-6 |
| 20 | D-5 |
| 21 | B-6 |
| 22 | D-5 |
| 23 | B-4 |
| 24 | B-4 |
| 30 | D-5 |
| 01 | F-8 |
| 02 | F-10 |
| 03 | G-10 |
| 04 | E-7 |
| 05 | E-7 |
| 06 | E-9 |
| 07 | E-10 |
| 08 | D-9 |

VARIABLE
RESISTOR

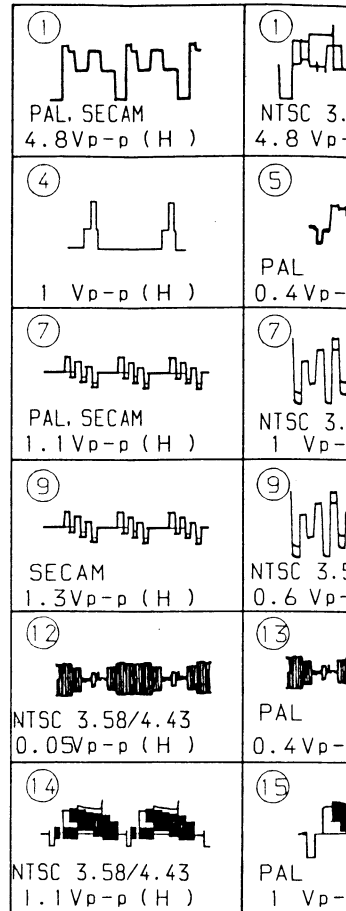
| | |
|-----|-----|
| 501 | F-5 |
| 502 | G-7 |
| 501 | A-6 |



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.



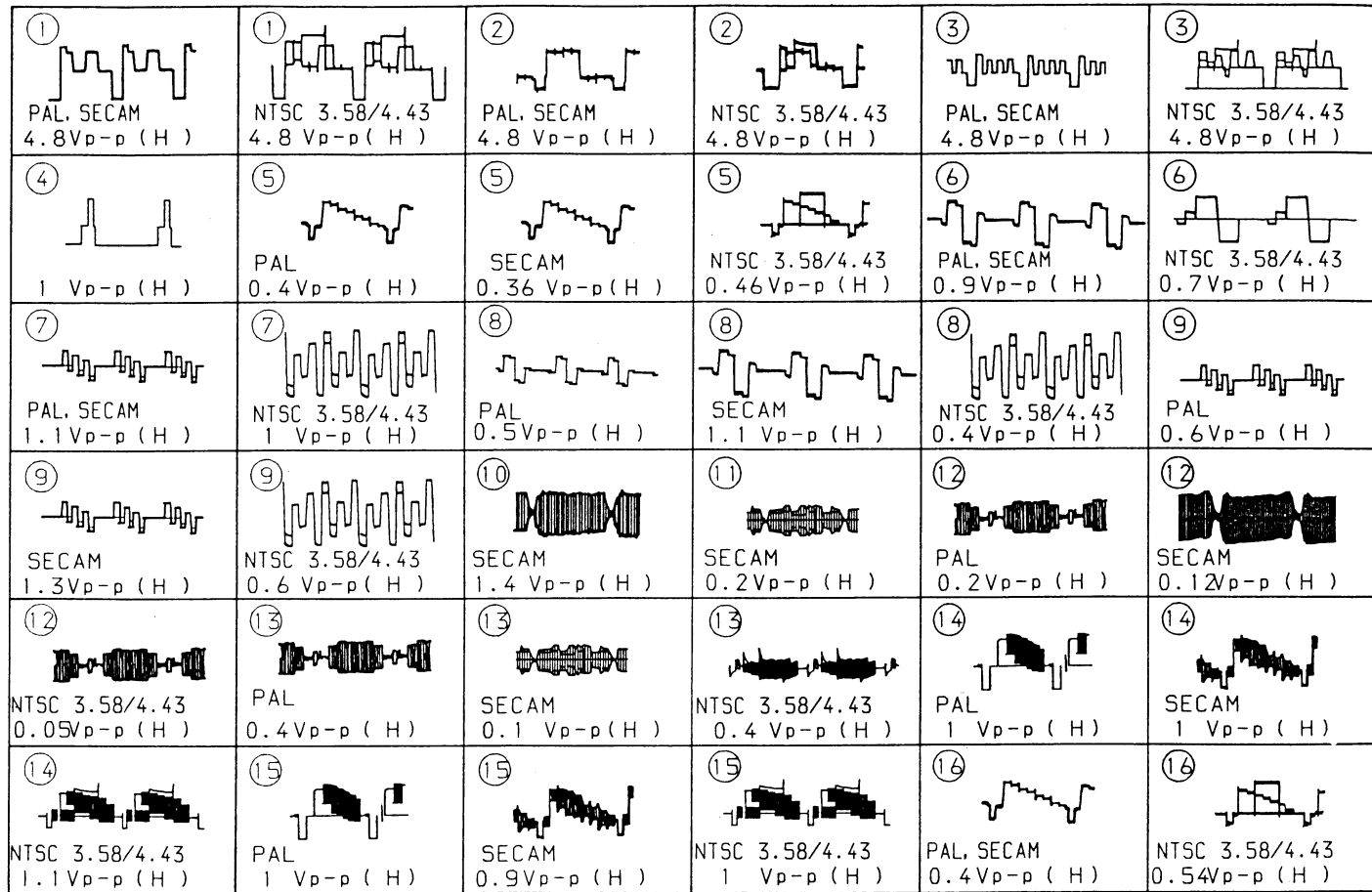
• WAVEFORMS B BOARD



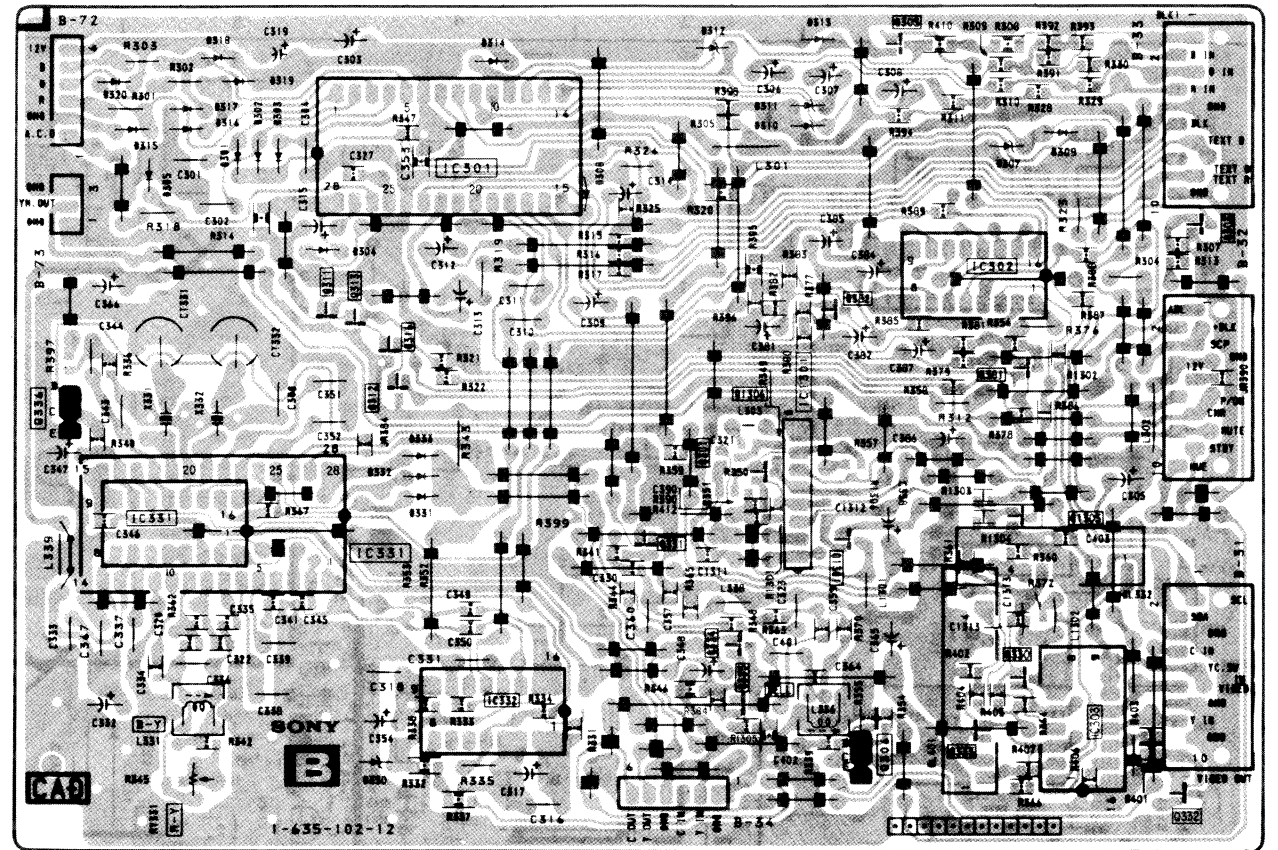
As to the voltage value shown by mark ※ on the Schematic Diagram, the another list.

| | | PAL | SECAM | NTSC3.58 | NTSC4.43 |
|-------|------|-----|-------|----------|----------|
| IC301 | (8) | 0.1 | 0.1 | 5.8 | 0.1 |
| | (24) | 6.7 | 6.8 | 5.1 | 5.1 |
| IC331 | (19) | 3.1 | 3.6 | 3.1 | 2.8 |
| | (21) | 3.0 | 3.5 | 2.9 | 2.7 |
| | (22) | 5.6 | 5.6 | 7.1 | 7.2 |
| | (23) | 7.5 | 7.0 | 5.6 | 5.6 |
| | (25) | 0.1 | 0.1 | 0.1 | 5.8 |
| | (26) | 0.1 | 0.1 | 5.8 | 0.1 |
| | (27) | 0.1 | 5.8 | 0.1 | 0.1 |
| | (28) | 5.9 | 0.1 | 0.1 | 0.1 |
| Q331 | (B) | 0.1 | 0.1 | 5.8 | 0.1 |
| | (C) | 1.5 | 1.9 | 0 | 0.8 |
| Q333 | (B) | 3.4 | 4.4 | 4.4 | 4.4 |
| Q334 | (B) | 4.9 | 0.1 | 4.8 | 4.8 |
| Q335 | (B) | 0.1 | 4.8 | 0.1 | 0.1 |
| Q336 | (B) | 0.1 | 5.8 | 0.1 | 0.1 |
| | (C) | 7.3 | 0 | 7.3 | 7.3 |

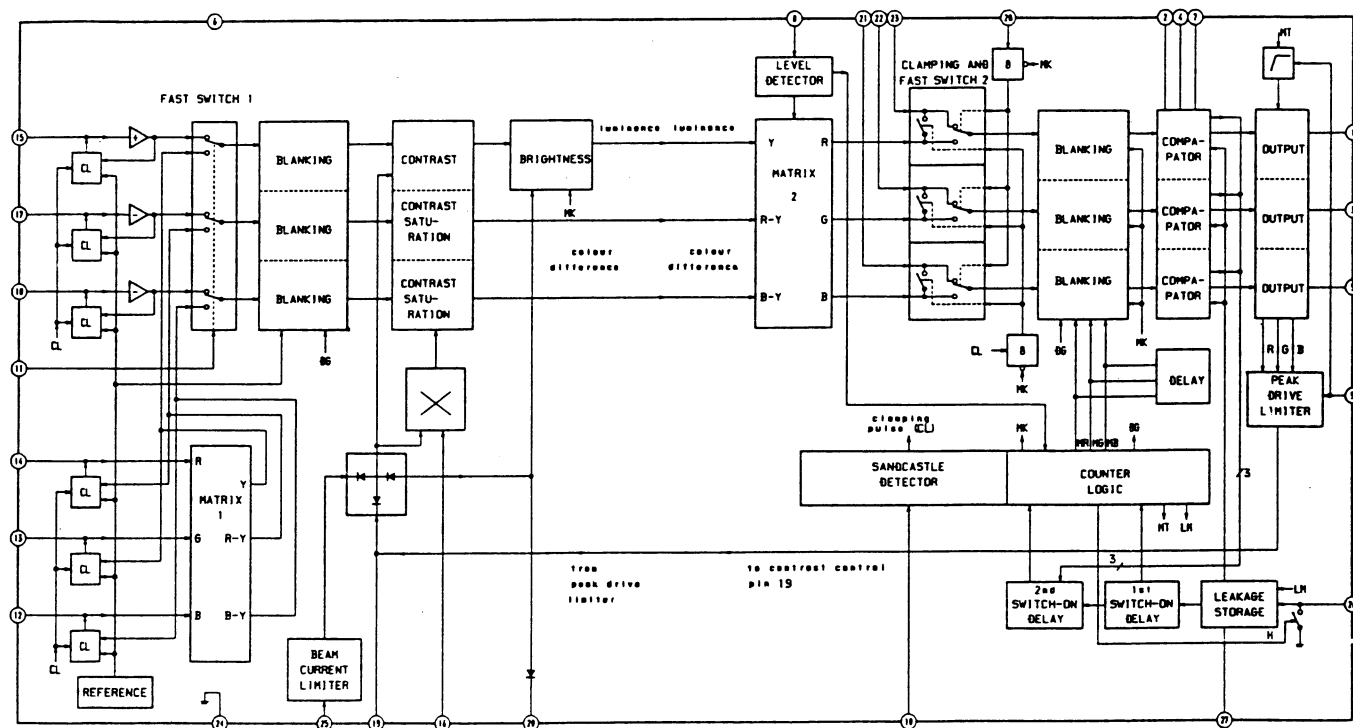
• WAVEFORMS B BOARD



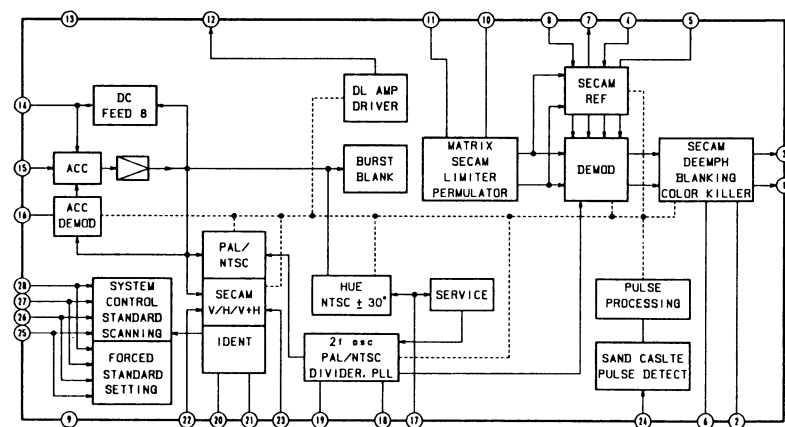
— B Board —



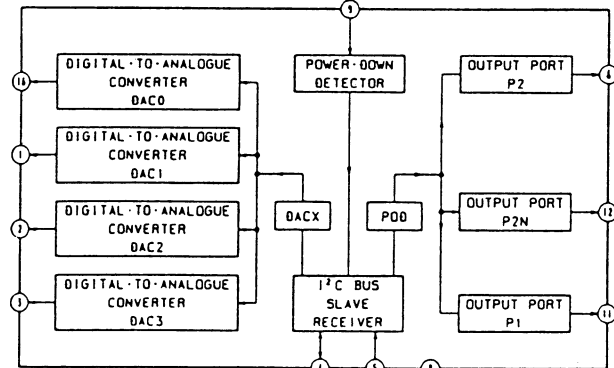
B BOARD IC301 TDA4580



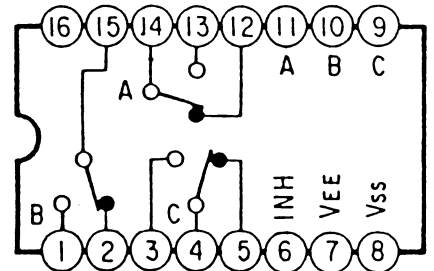
• B BOARD IC331 TDA4650



B BOARD IC302 TDA8442-N3

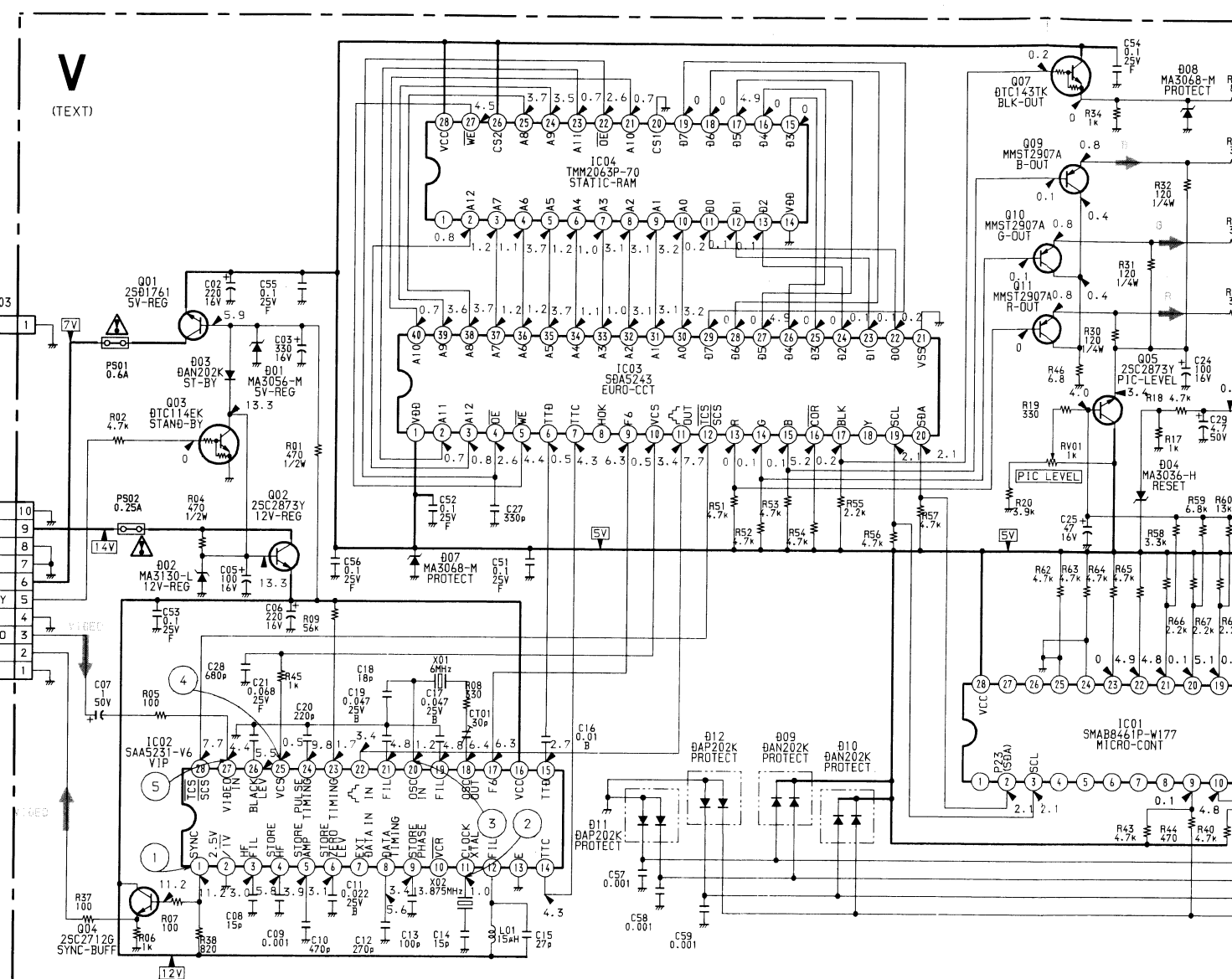







B BOARD IC303 MC14053BCP

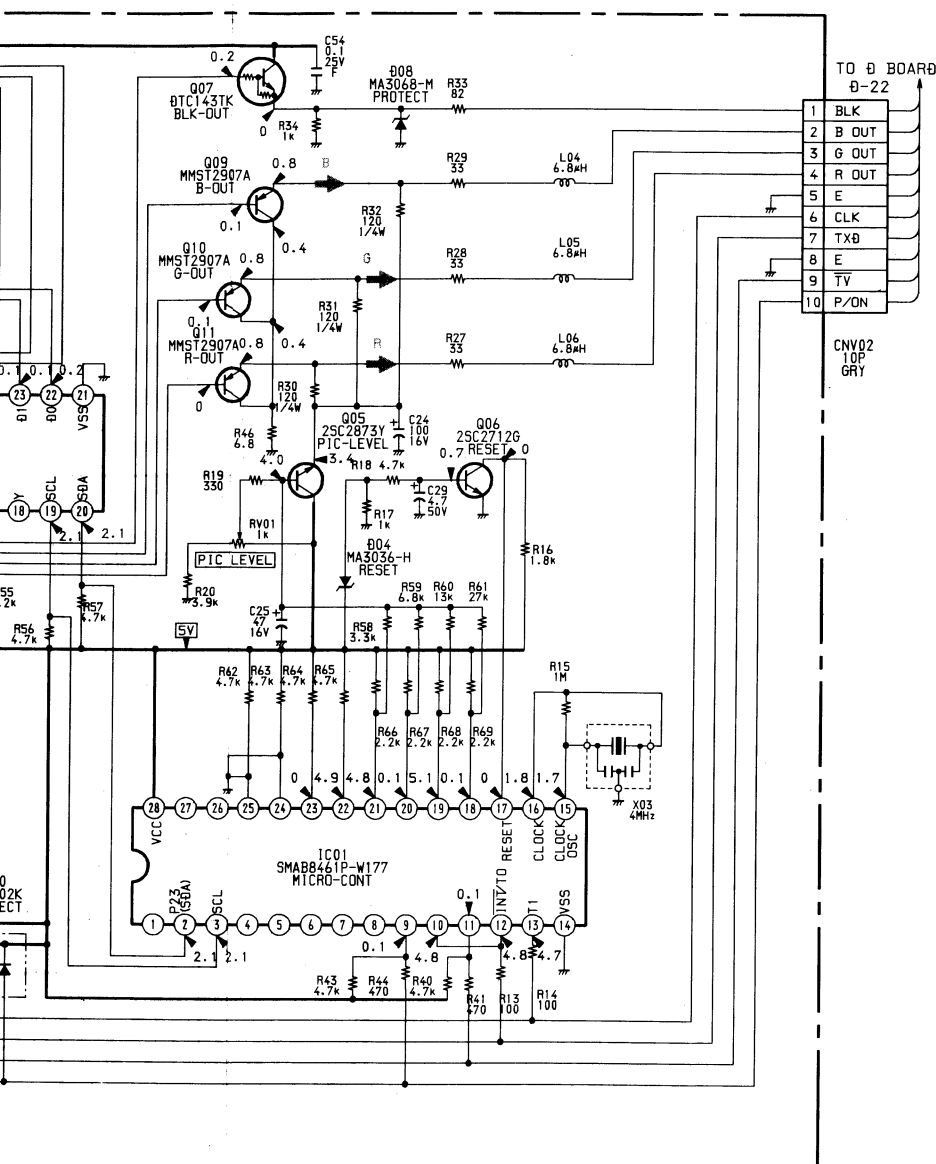


As to the voltage value shown by the mark ※ on the Schematic Diagram, see the another list.

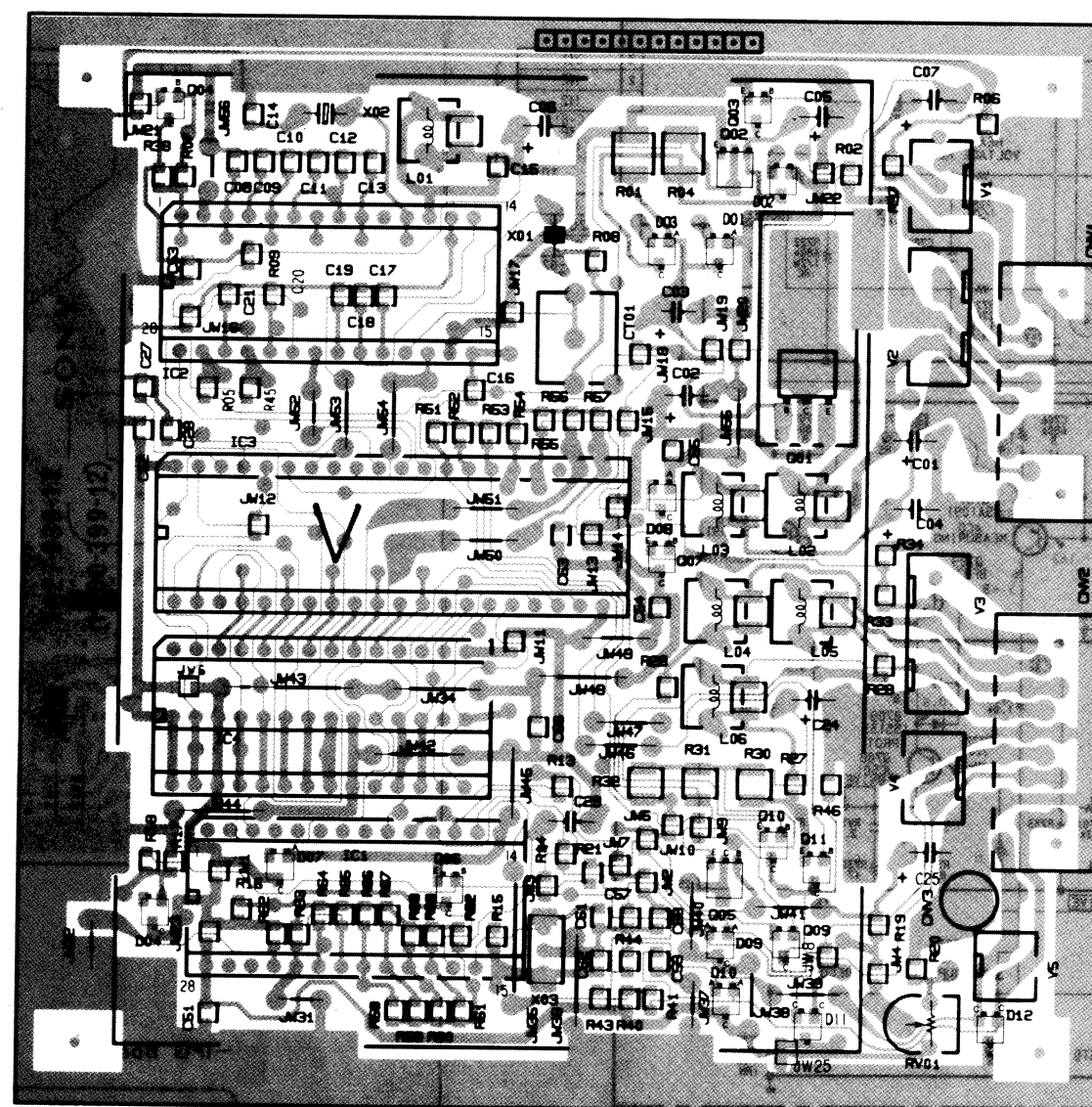
| | PAL | SECAM | NTSC3.58 | NTSC4.43 |
|------------|-----|-------|----------|----------|
| IC301 (A) | 0.1 | 0.1 | 5.8 | 0.1 |
| (24) | 6.7 | 6.8 | 5.1 | 5.1 |
| IC331 (19) | 3.1 | 3.6 | 3.1 | 2.8 |
| (21) | 3.0 | 3.5 | 2.9 | 2.7 |
| (22) | 5.6 | 5.6 | 7.1 | 7.2 |
| (23) | 7.5 | 7.0 | 5.6 | 5.6 |
| (25) | 0.1 | 0.1 | 0.1 | 5.8 |
| (26) | 0.1 | 0.1 | 5.8 | 0.1 |
| (27) | 0.1 | 5.8 | 0.1 | 0.1 |
| (28) | 5.9 | 0.1 | 0.1 | 0.1 |
| Q331 (B) | 0.1 | 0.1 | 5.8 | 0.1 |
| (C) | 1.5 | 1.9 | 0 | 0.8 |
| Q333 (B) | 3.4 | 4.4 | 4.4 | 4.4 |
| Q334 (B) | 4.9 | 0.1 | 4.8 | 4.8 |
| Q335 (B) | 0.1 | 4.8 | 0.1 | 0.1 |
| Q336 (B) | 0.1 | 5.8 | 0.1 | 0.1 |
| (C) | 7.3 | 0 | 7.3 | 7.3 |



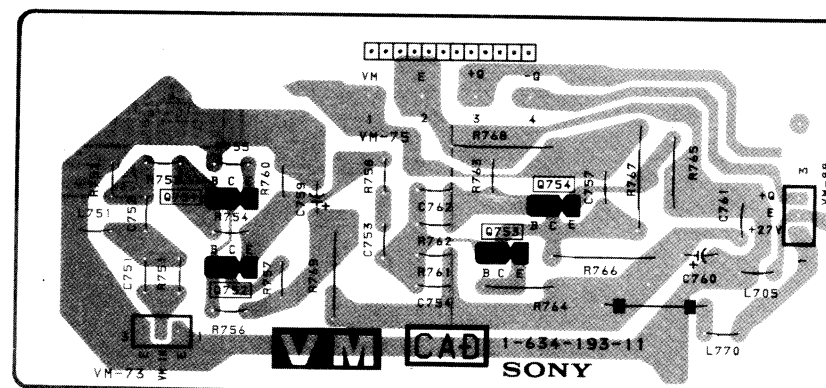
| | | |
|---|--|--|
| <p>①</p>  <p>0.9 V_{p-p} (H)</p> | <p>②</p>  <p>0.9 V_{p-p}(13.875MHz)</p> | <p>③</p>  <p>0.4 V_{p-p} (6MHz)</p> |
| <p>④</p>  <p>2.8 V_{p-p} (H)</p> | <p>⑤</p>  <p>1 V_{p-p} (H)</p> | |

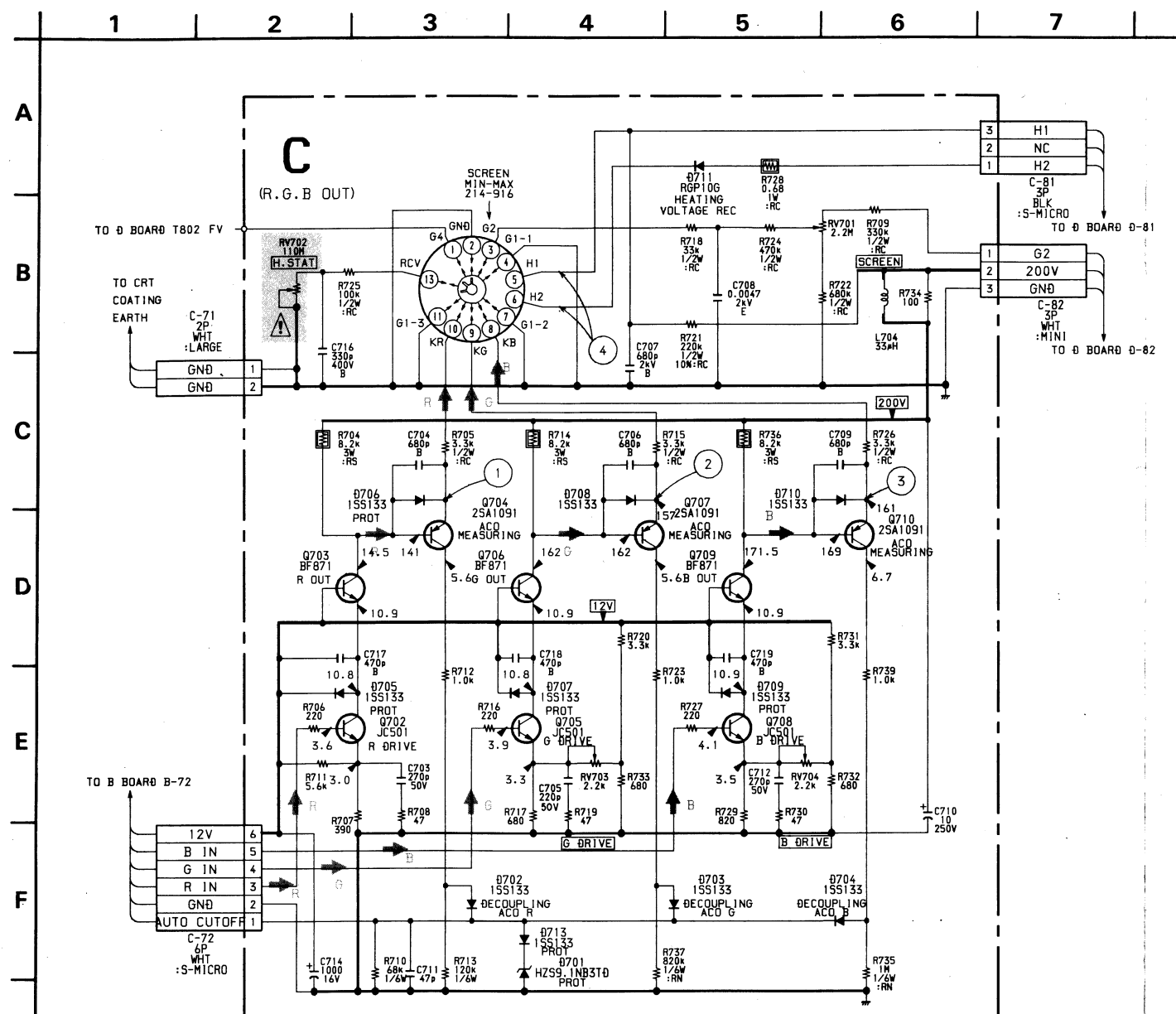


-V Board-

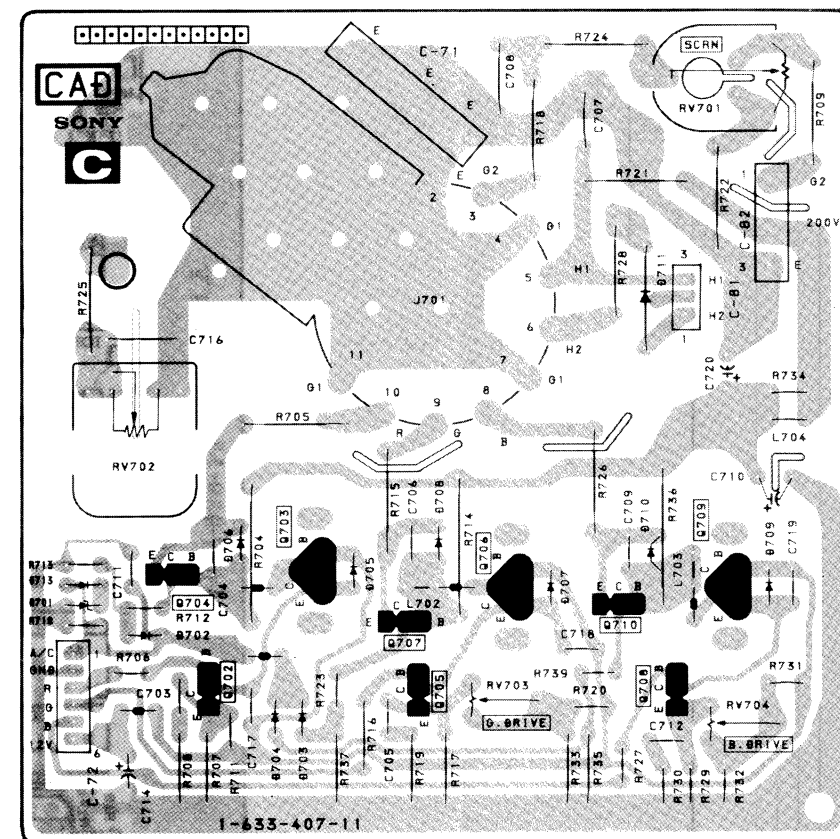
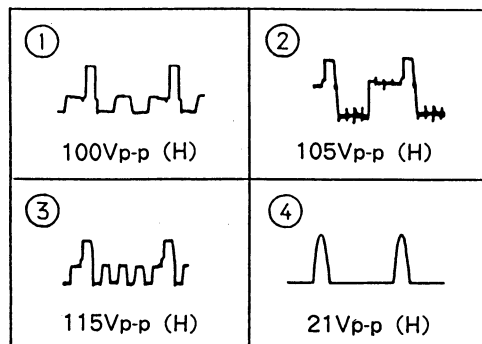


-VM Board-

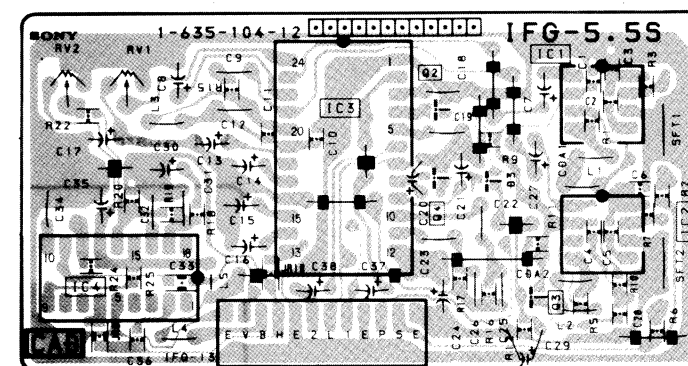




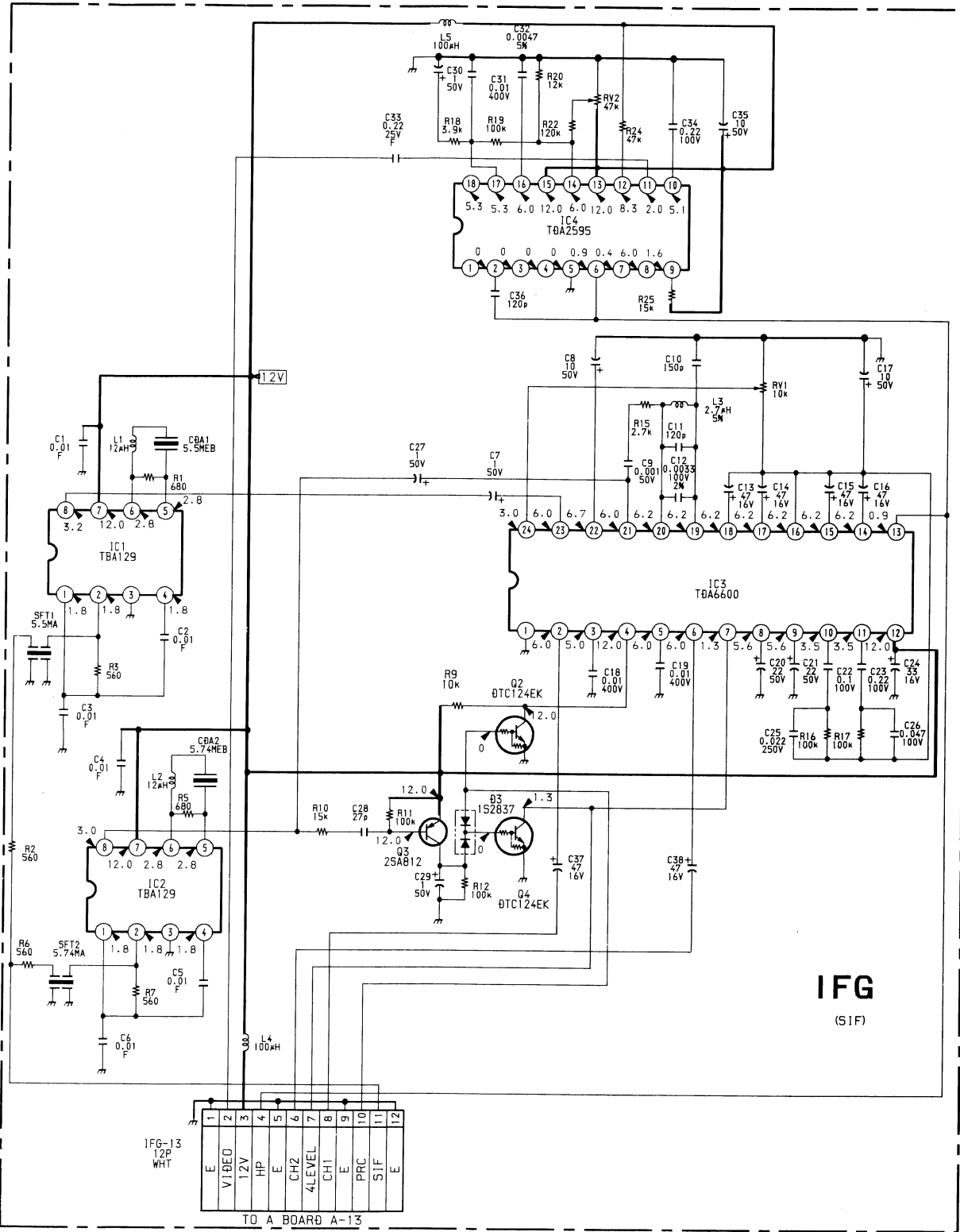
- **WAVEFORMS C BOARD**



—IFG Board—



5-4. SCHEMATIC DIAGRAM (SIF-102 IFG-5.5G)



5-5. SEMICONDUCTORS

| | | | | |
|--|--|-------------------------------------|-----------------------------------|---|
| BA4558 SDA2546 TEA2014 TEA2031A | TDA2050 | DTC124ES DTC144ES | CTU-12S | HZS10NB3TD HZS11NB3TD HZS13NB2TD HZS15NB1TD HZS33NB1TD HZS36NB4TD HZS4.7NB2TD HZS5.6NB2TD HZS5.6NB3TD HZS6.2NB2TD HZS6.8NB3TD HZS7.5NB3TD HZS9.1NB3TD 1SS133 |
| | | | | |
| TOP VIEW | TOP VIEW | | | CATHODE ANODE |
| BX1387 | TDA8170 | JA101 JC501 2SA1091 2SD789 | DAN202K | KBU4JL-6088 |
| | | | | |
| | TYA7812CT PC24M05HF | | DAP202K | MA3036H MA3056M MA3068M MA3130L |
| CXA1114P SAA5231-V6 SMAB8461P-W177 TDA4580 TDA4650 TDA6200 TEA2028B TMM2063P-70 | | 2SB734 2SD774 | DA204K | |
| | BF871 | | | ERC06-15S ERC25-06S |
| TOP VIEW | | 2SB1185 2SD1761 | | |
| CXD1050A | BU508AS1 BU508AS2 2SD1584-LB 2SD1941 | | LD-201VR | |
| | | 2SC2688 | | |
| TOP VIEW | | 2SC2873Y | ERD29-08J | |
| HIC2110 | DTA144EK DTC114EK DTC124EK DTC143TK DTC144EK MMST2907A 2SA1162G 2SC2712 | | | |
| | | 2SD2096 | ES1F GP08D RGP10G RGP15J | |
| MC14053BCP PCF8574 TDA4660 TDA8442-N3 TEA2260 | | | | |
| | SDA2083 SDA5243 | | | |
| TOP VIEW | | | | |

SECTION 6 EXPLODED VIEWS

NOTE:

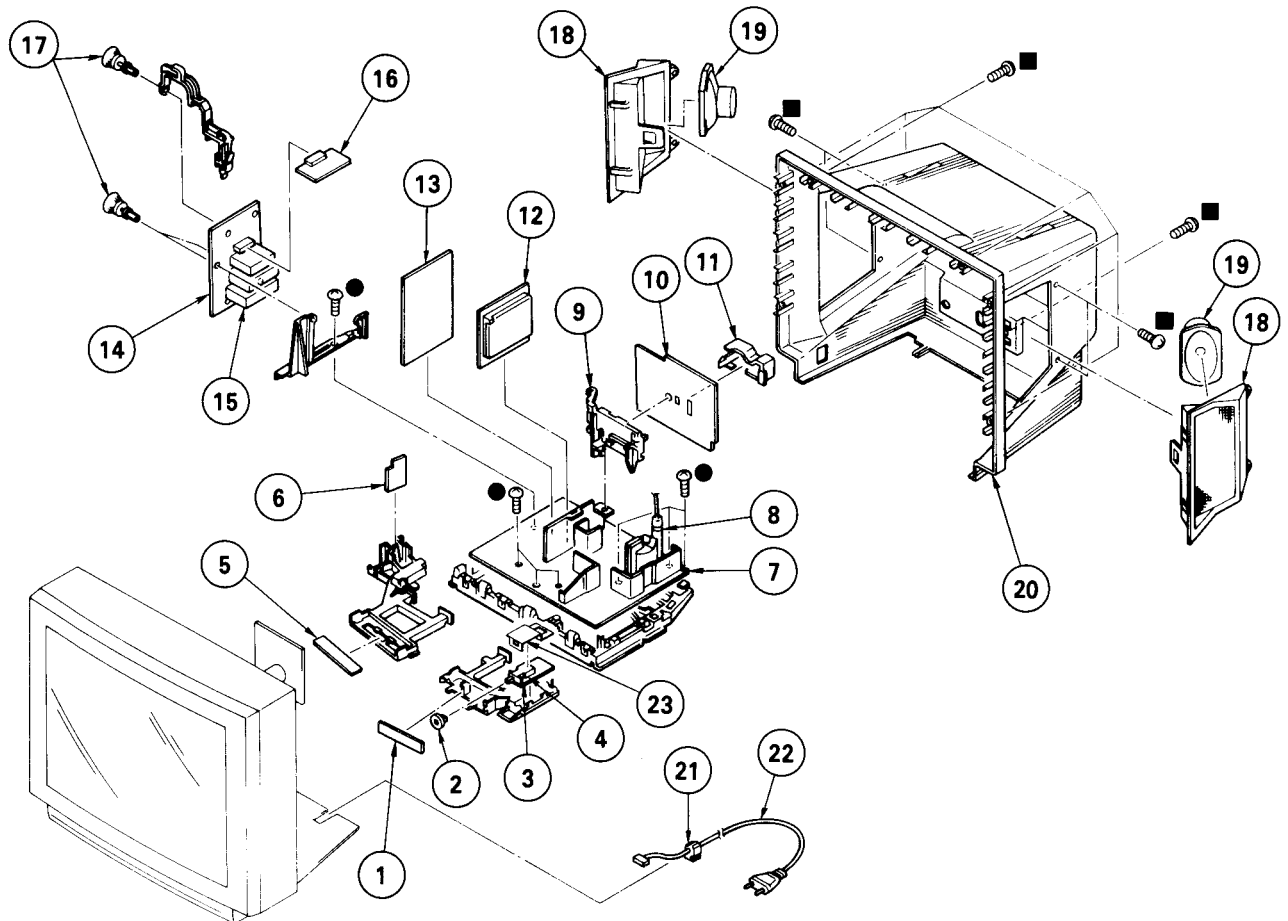
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark **▲** are critical for safety.
Replace only with part number specified.

(1) CHASSIS

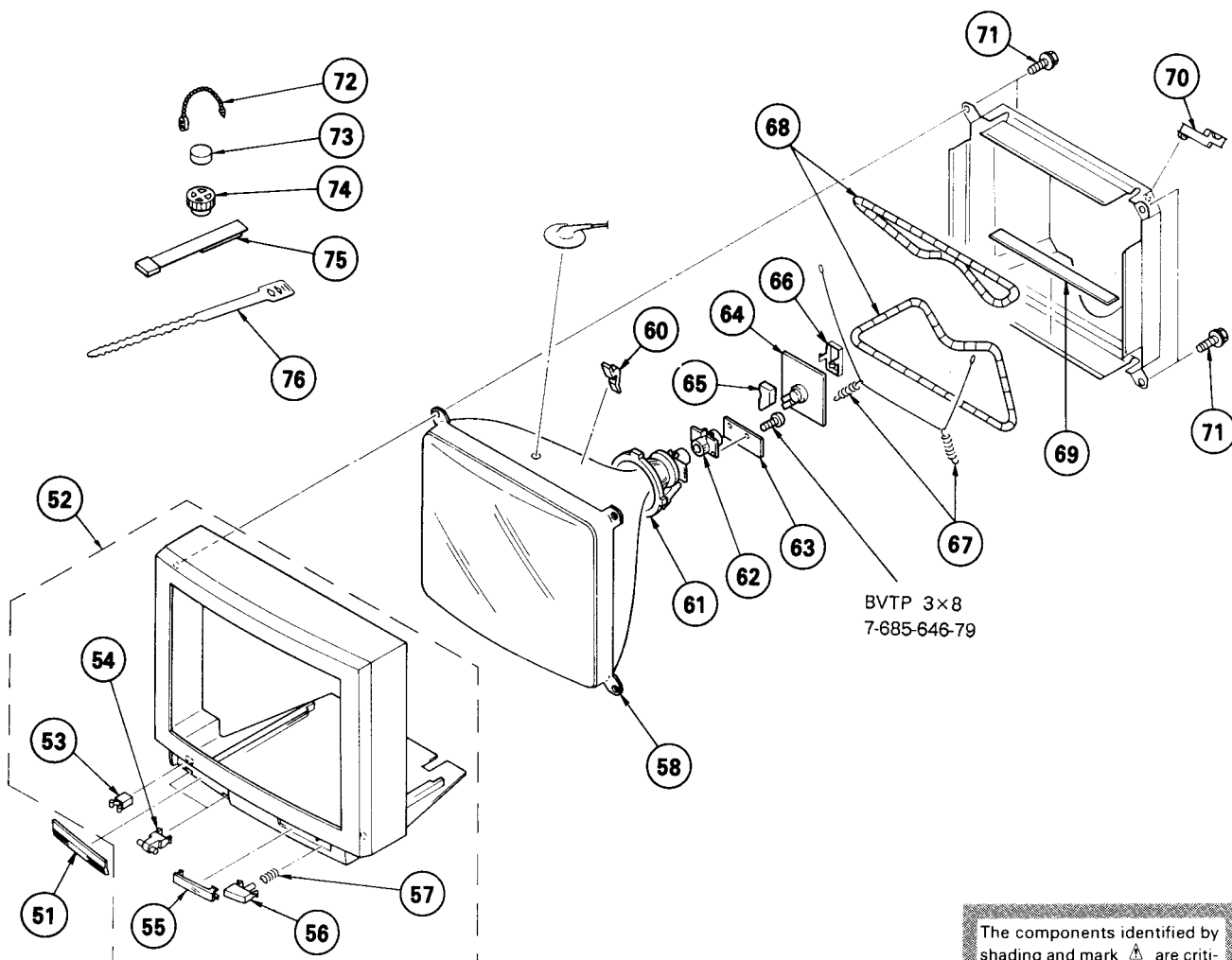
●: BVTP 3×12 7-685-648-79

■: BVTP 4×16 7-685-663-79



| REF.NO. | PART NO. | DESCRIPTION | REMARK | REF.NO. | PART NO. | DESCRIPTION | REMARK |
|---------|----------------|-------------------------------------|--------|---------|----------------|---------------------------------|--------|
| 1 | *1-633-410-11 | H2 BOARD | | 13 | *A-1621-011-A | B BOARD, COMPLETE | |
| 2 | 4-386-611-01 | COVER, SWITCH | | 14 | *A-1632-005-A | A BOARD, COMPLETE | |
| 3 | *1-633-408-11 | F BOARD | | 15 | ▲.1-465-301-11 | TUNER, ET (UV-816(PLL)) | |
| 4 | ▲.1-571-433-11 | SWITCH, PUSH (AC POWER) | | 16 | *A-1654-003-A | IFG BOARD, COMPLETE | |
| 5 | *1-633-409-11 | H1 BOARD | | 17 | 4-386-618-01 | RIVET, T TYPE | |
| 6 | *1-633-411-11 | J2 BOARD | | 18 | X-4398-901-1 | BOARD ASSY, Baffle | |
| 7 | *A-1642-008-A | D BOARD, COMPLETE | | 19 | | SPEAKER | |
| 8 | ▲.1-439-416-11 | TRANSFORMER ASSY, FLYBACK (UX-1600) | | 20 | 4-398-910-01 | COVER, REAR | |
| 9 | *4-386-624-11 | BRACKET, J | | 21 | ▲.4-389-201-02 | HOLDER, AC CORD | |
| 10 | *A-1651-015-A | J1 BOARD, COMPLETE | | 22 | ▲.1-575-487-11 | CORD, POWER (WITH NOISE FILTER) | |
| 11 | 4-200-014-01 | BRACKET, TERMINAL | | 23 | 4-200-274-01 | COVER, POWER SWITCH | |
| 12 | *A-1347-031-A | V BOARD, COMPLETE | | | | | |

(2) PICTURE TUBE



The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

| REF.NO. | PART NO. | DESCRIPTION | REMARK | REF.NO. | PART NO. | DESCRIPTION | REMARK |
|---------|-----------------------|----------------------------------|--------|---------|-----------------------|-----------------------------------|--------|
| 51 | 4-398-911-01 | DOOR, CONTROL | | 65 | *4-379-167-01 | COVER (MAIN), CV | |
| 52 | X-4398-902-1 | CABINET ASSY (WITH BEZEL ASSY) | 53-57 | 66 | *4-379-160-01 | COVER (REAR LID), CV | |
| 53 | 4-392-036-01 | CATCHER, PUSH | | 67 | 4-369-318-00 | SPRING, TENSION | |
| 54 | 3-703-035-11 | SHAFT, LID | | 68 | Δ 1-426-398-11 | COIL, DEMAGNETIZATION | |
| 55 | 4-200-148-01 | WINDOW, ORNAMENTAL | | 69 | 4-389-291-01 | CUSHION | |
| 56 | 4-200-150-01 | BUTTON, POWER | | 70 | *4-387-216-01 | HOLDER, LEAD | |
| 57 | 4-329-112-21 | SPRING | | 71 | 4-373-263-01 | SCREW (M), PT | |
| 58 | Δ 8-733-823-05 | PICTURE TUBE (A68JYK60X) | | 72 | 4-308-870-00 | CLIP, LEAD WIRE | |
| 60 | 3-704-495-01 | SPACER, DY | | 73 | 1-452-032-00 | MAGNET, DISK; 10MM ϕ | |
| 61 | Δ 1-451-313-21 | DEFLECTION YOKE (Y29FXA) | | 74 | 1-452-094-00 | MAGNET, ROTABLE DISK; 15MM ϕ | |
| 62 | Δ 1-452-509-42 | NECK ASSY, PICTURE TUBE (NA-308) | | 75 | X-4387-214-1 | PERMALLOY ASSY, CORRECTION | |
| 63 | *1-634-193-11 | VM BOARD | | 76 | 3-701-007-00 | BAND, BINDING | |
| 64 | *A-1638-007-A | C BOARD, COMPLETE | | | | | |

SECTION 7 ELECTRICAL PARTS LIST

V

NOTE:

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

• Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

• All resistors are in ohms
• F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS

• MF : μ F, PF : μ F

COILS

• MMH : mH, UH : μ H

| REF.NO. | PART NO. | DESCRIPTION | REMARK | REF.NO. | PART NO. | DESCRIPTION | REMARK |
|---------|---------------|-------------------------------|--------|---------------|--------------|-------------------------|--------|
| | *A-1347-031-A | V BOARD, COMPLETE ***** | | | | <DIODE> | |
| | *4-380-699-01 | CASE (UPPER LID), SHIELD, A1 | | D01 | 8-719-105-91 | DIODE RD5.6M-B2 | |
| | | <CAPACITOR> | | D02 | 8-719-106-79 | DIODE RD13M-B1 | |
| C02 | 1-124-120-11 | ELECT 220MF 20% 16V | | D03 | 8-719-400-18 | DIODE MA152WK | |
| C03 | 1-124-119-00 | ELECT 330MF 20% 16V | | D04 | 8-719-105-52 | DIODE RD3.6M-B2 | |
| C05 | 1-126-101-11 | ELECT 100MF 20% 16V | | D07 | 8-719-106-17 | DIODE RD6.8M-B2 | |
| C06 | 1-124-120-11 | ELECT 220MF 20% 16V | | D08 | 8-719-106-17 | DIODE RD6.8M-B2 | |
| C07 | 1-124-791-11 | ELECT 1MF 20% 50V | | D09 | 8-719-400-18 | DIODE MA152WK | |
| C08 | 1-163-097-00 | CERAMIC CHIP 15PF 5% 50V | | D10 | 8-719-400-18 | DIODE MA152WK | |
| C09 | 1-163-141-00 | CERAMIC CHIP 0.001MF 5% 50V | | D11 | 8-719-914-44 | DIODE DAP202K | |
| C10 | 1-163-133-00 | CERAMIC CHIP 470PF 5% 50V | | D12 | 8-719-914-44 | DIODE DAP202K | |
| C11 | 1-163-037-11 | CERAMIC CHIP 0.022MF 10% 25V | | | | <IC> | |
| C12 | 1-163-127-00 | CERAMIC CHIP 270PF 5% 50V | | IC1 | 8-759-986-92 | IC MAB-8461P-W177 | |
| C13 | 1-163-117-00 | CERAMIC CHIP 100PF 5% 50V | | IC2 | 8-759-972-96 | IC SAA5231-V6 | |
| C14 | 1-163-097-00 | CERAMIC CHIP 15PF 5% 50V | | IC3 | 8-759-032-98 | IC SDA5243 | |
| C15 | 1-163-103-00 | CERAMIC CHIP 27PF 5% 50V | | IC4 | 8-759-230-68 | IC TMM2063P-70 | |
| C16 | 1-164-232-11 | CERAMIC CHIP 0.01MF 10% 50V | | | | <COIL> | |
| C17 | 1-163-809-11 | CERAMIC CHIP 0.047MF 10% 25V | | L01 | 1-408-411-00 | INDUCTOR 15UH | |
| C18 | 1-163-099-00 | CERAMIC CHIP 18PF 5% 50V | | L04 | 1-408-407-00 | INDUCTOR 6.8UH | |
| C19 | 1-163-809-11 | CERAMIC CHIP 0.047MF 10% 25V | | L05 | 1-408-407-00 | INDUCTOR 6.8UH | |
| C20 | 1-163-125-00 | CERAMIC CHIP 220PF 5% 50V | | L06 | 1-408-407-00 | INDUCTOR 6.8UH | |
| C21 | 1-163-833-00 | CERAMIC CHIP 0.068MF 25V | | | | <IC LINK> | |
| C24 | 1-126-101-11 | ELECT 100MF 20% 16V | | PS01 Δ | 1-532-679-91 | LINK, IC (ICP-N15) 0.6A | |
| C25 | 1-124-477-11 | ELECT 47MF 20% 16V | | PS02 Δ | 1-532-727-91 | LINK, IC 0.25A | |
| C27 | 1-163-129-00 | CERAMIC CHIP 330PF 5% 50V | | | | <TRANSISTOR> | |
| C28 | 1-163-137-00 | CERAMIC CHIP 680PF 5% 50V | | Q3 | 8-729-900-53 | TRANSISTOR DTC114EK | |
| C29 | 1-124-927-11 | ELECT 4.7MF 20% 50V | | Q01 | 8-729-107-26 | TRANSISTOR 2SD1585-K | |
| C51 | 1-163-038-00 | CERAMIC CHIP 0.1MF 25V | | Q02 | 8-729-807-50 | TRANSISTOR 2SD1623-R | |
| C52 | 1-163-038-00 | CERAMIC CHIP 0.1MF 25V | | Q04 | 8-729-271-22 | TRANSISTOR 2SC2712-G | |
| C53 | 1-163-038-00 | CERAMIC CHIP 0.1MF 25V | | Q05 | 8-729-807-50 | TRANSISTOR 2SD1623-R | |
| C54 | 1-163-038-00 | CERAMIC CHIP 0.1MF 25V | | Q06 | 8-729-271-22 | TRANSISTOR 2SC2712-G | |
| C55 | 1-163-038-00 | CERAMIC CHIP 0.1MF 25V | | Q07 | 8-729-900-98 | TRANSISTOR DTC143TK | |
| C56 | 1-163-038-00 | CERAMIC CHIP 0.1MF 25V | | Q09 | 8-729-807-87 | TRANSISTOR 2SB1295-UL6 | |
| C57 | 1-163-141-00 | CERAMIC CHIP 0.001MF 5% 50V | | Q10 | 8-729-807-87 | TRANSISTOR 2SB1295-UL6 | |
| C58 | 1-163-141-00 | CERAMIC CHIP 0.001MF 5% 50V | | Q11 | 8-729-807-87 | TRANSISTOR 2SB1295-UL6 | |
| C59 | 1-163-141-00 | CERAMIC CHIP 0.001MF 5% 50V | | | | <RESISTOR> | |
| | | <CONNECTOR> | | JW1 | 1-216-295-00 | METAL GLAZE 0 5% 1/10W | |
| CNV01 | *1-565-393-11 | CONNECTOR, BOARD TO BOARD | | JW2 | 1-216-295-00 | METAL GLAZE 0 5% 1/10W | |
| CNV02 | *1-565-393-11 | CONNECTOR, BOARD TO BOARD | | JW3 | 1-216-295-00 | METAL GLAZE 0 5% 1/10W | |
| CNV03 | *1-508-784-00 | PIN, CONNECTOR (5MM PITCH) 1P | | JW4 | 1-216-295-00 | METAL GLAZE 0 5% 1/10W | |
| | | <TRIMMER> | | JW5 | 1-216-295-00 | METAL GLAZE 0 5% 1/10W | |
| CT01 | 1-141-392-11 | CAP, VAR, TRIMMER (1 GANG) | | JW6 | 1-216-295-00 | METAL GLAZE 0 5% 1/10W | |



| REF.NO. | PART NO. | DESCRIPTION | REMARK | REF.NO. | PART NO. | DESCRIPTION | REMARK |
|---------|--------------|-------------|---------------|---------|--------------|---|--------|
| JW7 | 1-216-295-00 | METAL GLAZE | 0 5% 1/10W | R64 | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W | |
| JW8 | 1-216-295-00 | METAL GLAZE | 0 5% 1/10W | R65 | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W | |
| JW9 | 1-216-295-00 | METAL GLAZE | 0 5% 1/10W | R66 | 1-216-057-00 | METAL GLAZE 2.2K 5% 1/10W | |
| JW10 | 1-216-295-00 | METAL GLAZE | 0 5% 1/10W | R67 | 1-216-057-00 | METAL GLAZE 2.2K 5% 1/10W | |
| JW11 | 1-216-295-00 | METAL GLAZE | 0 5% 1/10W | R68 | 1-216-057-00 | METAL GLAZE 2.2K 5% 1/10W | |
| JW12 | 1-216-295-00 | METAL GLAZE | 0 5% 1/10W | R69 | 1-216-057-00 | METAL GLAZE 2.2K 5% 1/10W | |
| JW13 | 1-216-295-00 | METAL GLAZE | 0 5% 1/10W | | | <VARIABLE RESISTOR> | |
| JW14 | 1-216-295-00 | METAL GLAZE | 0 5% 1/10W | RV01 | 1-238-012-11 | RES, ADJ, CARBON 1K | |
| JW15 | 1-216-295-00 | METAL GLAZE | 0 5% 1/10W | | | <CRYSTAL> | |
| JW16 | 1-216-295-00 | METAL GLAZE | 0 5% 1/10W | X01 | 1-567-162-00 | OSCILLATOR, CRYSTAL | |
| JW17 | 1-216-295-00 | METAL GLAZE | 0 5% 1/10W | X02 | 1-567-495-11 | OSCILLATOR, CRYSTAL | |
| JW18 | 1-216-295-00 | METAL GLAZE | 0 5% 1/10W | X03 | 1-577-082-11 | VIBRATOR, CERAMIC | |
| JW19 | 1-216-295-00 | METAL GLAZE | 0 5% 1/10W | | | ***** | |
| JW20 | 1-216-295-00 | METAL GLAZE | 0 5% 1/10W | | | *A-1621-011-A B BOARD, COMPLETE | |
| JW21 | 1-216-295-00 | METAL GLAZE | 0 5% 1/10W | | | ***** | |
| JW22 | 1-216-295-00 | METAL GLAZE | 0 5% 1/10W | | | *1-565-393-11 CONNECTOR, BOARD TO BOARD | |
| JW23 | 1-216-295-00 | METAL GLAZE | 0 5% 1/10W | | | *1-568-878-51 PIN, CONNECTOR 3P | |
| JW24 | 1-216-295-00 | METAL GLAZE | 0 5% 1/10W | | | *1-568-881-51 PIN, CONNECTOR 6P | |
| JW25 | 1-216-295-00 | METAL GLAZE | 0 5% 1/10W | | | <CAPACITOR> | |
| R01 | 1-218-326-11 | METAL GLAZE | 470 5% 1/2W | C301 | 1-106-228-00 | MYLAR 0.22MF 10% 100V | |
| R02 | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W | C302 | 1-106-228-00 | MYLAR 0.22MF 10% 100V | |
| R04 | 1-218-326-11 | METAL GLAZE | 470 5% 1/2W | C303 | 1-124-122-11 | ELECT 100MF 20% 50V | |
| R05 | 1-216-025-00 | METAL GLAZE | 100 5% 1/10W | C304 | 1-106-228-00 | MYLAR 0.22MF 10% 100V | |
| R06 | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W | C305 | 1-124-119-00 | ELECT 330MF 20% 16V | |
| R07 | 1-216-025-00 | METAL GLAZE | 100 5% 1/10W | C306 | 1-124-902-00 | ELECT 0.47MF 20% 50V | |
| R08 | 1-216-037-00 | METAL GLAZE | 330 5% 1/10W | C307 | 1-124-902-00 | ELECT 0.47MF 20% 50V | |
| R09 | 1-216-091-00 | METAL GLAZE | 56K 5% 1/10W | C308 | 1-124-902-00 | ELECT 0.47MF 20% 50V | |
| R13 | 1-216-025-00 | METAL GLAZE | 100 5% 1/10W | C309 | 1-124-902-00 | ELECT 0.47MF 20% 50V | |
| R14 | 1-216-025-00 | METAL GLAZE | 100 5% 1/10W | C310 | 1-106-220-00 | MYLAR 0.1MF 10% 100V | |
| R15 | 1-216-121-00 | METAL GLAZE | 1M 5% 1/10W | C311 | 1-106-220-00 | MYLAR 0.1MF 10% 100V | |
| R16 | 1-216-055-00 | METAL GLAZE | 1.8K 5% 1/10W | C312 | 1-124-902-00 | ELECT 0.47MF 20% 50V | |
| R17 | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W | C313 | 1-124-902-00 | ELECT 0.47MF 20% 50V | |
| R18 | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W | C314 | 1-124-902-00 | ELECT 0.47MF 20% 50V | |
| R19 | 1-216-037-00 | METAL GLAZE | 330 5% 1/10W | C315 | 1-124-791-11 | ELECT 1MF 20% 50V | |
| R20 | 1-216-063-00 | METAL GLAZE | 3.9K 5% 1/10W | C316 | 1-106-220-00 | MYLAR 0.1MF 10% 100V | |
| R27 | 1-216-013-00 | METAL GLAZE | 33 5% 1/10W | C317 | 1-124-910-11 | ELECT 47MF 20% 50V | |
| R28 | 1-216-013-00 | METAL GLAZE | 33 5% 1/10W | C318 | 1-106-220-00 | MYLAR 0.1MF 10% 100V | |
| R29 | 1-216-013-00 | METAL GLAZE | 33 5% 1/10W | C320 | 1-163-121-00 | CERAMIC CHIP 150PF 5% 50V | |
| R30 | 1-218-325-11 | METAL GLAZE | 120 5% 1/4W | C322 | 1-163-121-00 | CERAMIC CHIP 150PF 5% 50V | |
| R31 | 1-218-325-11 | METAL GLAZE | 120 5% 1/4W | C323 | 1-102-947-00 | CERAMIC CHIP 10PF 0.5PF 50V | |
| R32 | 1-218-325-11 | METAL GLAZE | 120 5% 1/4W | C327 | 1-164-232-11 | CERAMIC CHIP 0.01MF 5% 50V | |
| R33 | 1-216-023-00 | METAL GLAZE | 82 5% 1/10W | C330 | 1-163-113-00 | CERAMIC CHIP 68PF 5% 50V | |
| R34 | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W | C331 | 1-106-220-00 | MYLAR 0.1MF 10% 100V | |
| R37 | 1-216-025-00 | METAL GLAZE | 100 5% 1/10W | C332 | 1-126-103-11 | ELECT 470MF 20% 16V | |
| R38 | 1-216-047-00 | METAL GLAZE | 820 5% 1/10W | C333 | 1-106-375-12 | MYLAR 0.022MF 10% 250V | |
| R40 | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W | C334 | 1-163-097-00 | CERAMIC CHIP 15PF 5% 50V | |
| R41 | 1-216-041-00 | METAL GLAZE | 470 5% 1/10W | C335 | 1-163-097-00 | CERAMIC CHIP 15PF 5% 50V | |
| R43 | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W | C336 | 1-102-816-00 | CERAMIC 120PF 5% 50V | |
| R44 | 1-216-041-00 | METAL GLAZE | 470 5% 1/10W | C337 | 1-101-004-00 | CERAMIC 0.01MF 50V | |
| R45 | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W | C338 | 1-106-220-00 | MYLAR 0.1MF 10% 100V | |
| R46 | 1-216-311-00 | METAL GLAZE | 6.8 5% 1/10W | C339 | 1-106-220-00 | MYLAR 0.1MF 10% 100V | |
| R51 | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W | C341 | 1-163-125-00 | CERAMIC CHIP 220PF 5% 50V | |
| R52 | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W | C343 | 1-106-383-00 | MYLAR 0.047MF 10% 100V | |
| R53 | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W | C344 | 1-130-783-00 | MYLAR 0.33MF 10% 100V | |
| R54 | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W | C345 | 1-163-123-00 | CERAMIC CHIP 180PF 5% 50V | |
| R55 | 1-216-057-00 | METAL GLAZE | 2.2K 5% 1/10W | C346 | 1-163-033-00 | CERAMIC CHIP 0.022MF 50V | |
| R56 | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W | | | | |
| R57 | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W | | | | |
| R58 | 1-216-061-00 | METAL GLAZE | 3.3K 5% 1/10W | | | | |
| R59 | 1-216-069-00 | METAL GLAZE | 6.8K 5% 1/10W | | | | |
| R60 | 1-216-076-00 | METAL GLAZE | 13K 5% 1/10W | | | | |
| R61 | 1-216-083-00 | METAL GLAZE | 27K 5% 1/10W | | | | |
| R62 | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W | | | | |
| R63 | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W | | | | |

| REF.NO. | PART NO. | DESCRIPTION | REMARK | REF.NO. | PART NO. | DESCRIPTION | REMARK |
|---------|--------------|----------------------|--------|---------|----------|--------------|---------------------------|
| C347 | 1-124-791-11 | ELECT 1MF | 20% | 50V | DL401 | 1-415-613-11 | DELAY LINE, Y |
| C348 | 1-124-791-11 | ELECT 1MF | 20% | 50V | | | |
| C349 | 1-101-004-00 | CERAMIC 0.01MF | | 50V | | | |
| C350 | 1-164-232-11 | CERAMIC CHIP 0.01MF | | 50V | | <IC> | |
| C351 | 1-106-375-12 | MYLAR 0.022MF | 10% | 250V | IC301 | 8-759-979-85 | IC TDA4580-V4 |
| C352 | 1-106-375-12 | MYLAR 0.022MF | 10% | 250V | IC302 | 8-759-980-60 | IC TDA8442N3 |
| C353 | 1-163-063-00 | CERAMIC CHIP 0.022MF | 10% | 50V | IC303 | 8-759-040-53 | IC MC14053BCP |
| C354 | 1-124-910-11 | ELECT 47MF | 20% | 50V | IC331 | 8-759-990-29 | IC TDA4650 |
| C357 | 1-163-117-00 | CERAMIC CHIP 100PF | 5% | 50V | IC332 | 8-759-505-39 | IC TDA4660V2 |
| C358 | 1-124-917-11 | ELECT 33MF | 20% | 50V | IC1301 | 1-235-534-11 | CONTROL MODULE, PICTURE |
| C359 | 1-163-103-00 | CERAMIC CHIP 27PF | 5% | 50V | | | |
| C360 | 1-101-004-00 | CERAMIC 0.01MF | | 50V | | <COIL> | |
| C364 | 1-163-105-00 | CERAMIC CHIP 33PF | 5% | 50V | L301 | 1-410-868-11 | INDUCTOR 4.7UH |
| C365 | 1-124-910-11 | ELECT 47MF | 20% | 50V | L302 | 1-410-868-11 | INDUCTOR 4.7UH |
| C366 | 1-126-103-11 | ELECT 470MF | 20% | 16V | L331 | 1-404-554-11 | COIL |
| C367 | 1-101-004-00 | CERAMIC 0.01MF | | 50V | L336 | 1-404-554-11 | COIL |
| C381 | 1-124-902-00 | ELECT 0.47MF | 20% | 50V | L338 | 1-408-409-00 | INDUCTOR 10UH |
| C382 | 1-124-927-11 | ELECT 4.7MF | 20% | 50V | L1301 | 1-408-425-00 | INDUCTOR 220UH |
| C384 | 1-124-910-11 | ELECT 47MF | 20% | 50V | L1302 | 1-408-419-00 | INDUCTOR 68UH |
| C385 | 1-124-927-11 | ELECT 4.7MF | 20% | 50V | | | |
| C386 | 1-124-927-11 | ELECT 4.7MF | 20% | 50V | | <TRANSISTOR> | |
| C387 | 1-130-833-00 | MYLAR 0.82MF | 10% | 63V | Q303 | 8-729-271-22 | TRANSISTOR 2SC2712-G |
| C388 | 1-106-220-00 | MYLAR 0.1MF | 10% | 100V | Q305 | 8-729-901-00 | TRANSISTOR DTC124EK |
| C401 | 1-101-361-00 | CERAMIC 150PF | 5% | 50V | Q306 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE |
| C402 | 1-163-197-00 | CERAMIC CHIP 470PF | 5% | 50V | Q311 | 8-729-271-22 | TRANSISTOR 2SC2712-G |
| C403 | 1-164-232-11 | CERAMIC CHIP 0.01MF | | 50V | Q312 | 8-729-271-22 | TRANSISTOR 2SC2712-G |
| C1311 | 1-163-105-00 | CERAMIC CHIP 33PF | 5% | 50V | Q313 | 8-729-271-22 | TRANSISTOR 2SC2712-G |
| C1312 | 1-163-101-00 | CERAMIC CHIP 22PF | 5% | 50V | Q316 | 8-729-271-22 | TRANSISTOR 2SC2712-G |
| C1313 | 1-102-953-00 | CERAMIC 18PF | 5% | 50V | Q330 | 8-729-216-22 | TRANSISTOR 2SA1162-G |
| | | <TRIMMER> | | | Q331 | 8-729-901-00 | TRANSISTOR DTC124EK |
| CT331 | 1-141-418-11 | CAP, ADJ | | | Q332 | 8-729-216-22 | TRANSISTOR 2SA1162-G |
| CT332 | 1-141-418-11 | CAP, ADJ | | | Q333 | 8-729-216-22 | TRANSISTOR 2SA1162-G |
| | | <DIODE> | | | Q334 | 8-729-271-22 | TRANSISTOR 2SC2712-G |
| D301 | 8-719-911-19 | DIODE 1SS119 | | | Q335 | 8-729-271-22 | TRANSISTOR 2SC2712-G |
| D302 | 8-719-911-19 | DIODE 1SS119 | | | Q336 | 8-729-900-36 | TRANSISTOR DTC124ES |
| D303 | 8-719-911-19 | DIODE 1SS119 | | | Q381 | 8-729-901-00 | TRANSISTOR DTC124EK |
| D304 | 8-719-911-19 | DIODE 1SS119 | | | Q382 | 8-729-271-22 | TRANSISTOR 2SC2712-G |
| D305 | 8-719-911-19 | DIODE 1SS119 | | | Q1301 | 8-729-901-00 | TRANSISTOR DTC124EK |
| D307 | 8-719-929-24 | DIODE HZS11NB3 | | | Q1305 | 8-729-271-22 | TRANSISTOR 2SC2712-G |
| D308 | 8-719-911-19 | DIODE 1SS119 | | | Q1306 | 8-729-271-22 | TRANSISTOR 2SC2712-G |
| D309 | 8-719-911-19 | DIODE 1SS119 | | | | | |
| D310 | 8-719-929-24 | DIODE HZS11NB3 | | | | <RESISTOR> | |
| D311 | 8-719-929-24 | DIODE HZS11NB3 | | | JR384 | 1-216-295-00 | METAL GLAZE 0 5% 1/10W |
| D312 | 8-719-929-24 | DIODE HZS11NB3 | | | R301 | 1-249-409-11 | CARBON 220 5% 1/4W |
| D313 | 8-719-911-19 | DIODE 1SS119 | | | R302 | 1-249-409-11 | CARBON 220 5% 1/4W |
| D314 | 8-719-911-19 | DIODE 1SS119 | | | R303 | 1-249-409-11 | CARBON 220 5% 1/4W |
| D315 | 8-719-911-19 | DIODE 1SS119 | | | R304 | 1-249-409-11 | CARBON 220 5% 1/4W |
| D316 | 8-719-911-19 | DIODE 1SS119 | | | R305 | 1-216-057-00 | METAL GLAZE 2.2K 5% 1/10W |
| D317 | 8-719-911-19 | DIODE 1SS119 | | | R307 | 1-216-097-00 | METAL GLAZE 100K 5% 1/10W |
| D318 | 8-719-911-19 | DIODE 1SS119 | | | R308 | 1-216-184-00 | METAL GLAZE 270 5% 1/8W |
| D319 | 8-719-911-19 | DIODE 1SS119 | | | R309 | 1-216-025-00 | METAL GLAZE 100 5% 1/10W |
| D320 | 8-719-911-19 | DIODE 1SS119 | | | R310 | 1-216-025-00 | METAL GLAZE 100 5% 1/10W |
| D331 | 8-719-911-19 | DIODE 1SS119 | | | R311 | 1-216-025-00 | METAL GLAZE 100 5% 1/10W |
| D332 | 8-719-911-19 | DIODE 1SS119 | | | R312 | 1-249-409-11 | CARBON 220 5% 1/4W |
| D333 | 8-719-911-19 | DIODE 1SS119 | | | R313 | 1-216-081-00 | METAL GLAZE 22K 5% 1/10W |
| D350 | 8-719-928-94 | DIODE HZS5.6NB3 | | | R314 | 1-216-182-00 | METAL GLAZE 220 5% 1/8W |
| | | <DELAY LINE> | | | R315 | 1-216-027-00 | METAL GLAZE 120 5% 1/10W |
| DL332 | 1-236-062-II | MODULE, Y DELAY LINE | | | R316 | 1-216-027-00 | METAL GLAZE 120 5% 1/10W |
| | | | | | R317 | 1-216-027-00 | METAL GLAZE 120 5% 1/10W |
| | | | | | R318 | 1-249-429-11 | CARBON 10K 5% 1/4W |
| | | | | | R319 | 1-249-409-11 | CARBON 220 5% 1/4W |



The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

| REF.NO. | PART NO. | DESCRIPTION | | | | |
|---------|--------------|-------------|------|----|-------|--|
| R320 | 1-216-198-00 | METAL GLAZE | 1K | 5% | 1/8W | |
| R321 | 1-216-057-00 | METAL GLAZE | 2.2K | 5% | 1/10W | |
| R322 | 1-216-055-00 | METAL GLAZE | 1.8K | 5% | 1/10W | |
| R323 | 1-249-422-11 | CARBON | 2.7K | 5% | 1/4W | |
| R324 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R325 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W | |
| R328 | 1-216-009-00 | METAL GLAZE | 22 | 5% | 1/10W | |
| R329 | 1-216-009-00 | METAL GLAZE | 22 | 5% | 1/10W | |
| R330 | 1-216-009-00 | METAL GLAZE | 22 | 5% | 1/10W | |
| R331 | 1-216-001-00 | METAL GLAZE | 10 | 5% | 1/10W | |
| R332 | 1-216-184-00 | METAL GLAZE | 270 | 5% | 1/8W | |
| R333 | 1-216-121-00 | METAL GLAZE | 1M | 5% | 1/10W | |
| R334 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W | |
| R335 | 1-247-852-11 | CARBON | 7.5K | 5% | 1/4W | |
| R336 | 1-216-061-00 | METAL GLAZE | 3.3K | 5% | 1/10W | |
| R337 | 1-216-184-00 | METAL GLAZE | 270 | 5% | 1/8W | |
| R338 | 1-216-001-00 | METAL GLAZE | 10 | 5% | 1/10W | |
| R339 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W | |
| R340 | 1-216-121-00 | METAL GLAZE | 1M | 5% | 1/10W | |
| R341 | 1-216-031-00 | METAL GLAZE | 180 | 5% | 1/10W | |
| R342 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | |
| R344 | 1-216-089-00 | METAL GLAZE | 47K | 5% | 1/10W | |
| R346 | 1-216-202-00 | METAL GLAZE | 1.5K | 5% | 1/8W | |
| R347 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W | |
| R348 | 1-216-089-00 | METAL GLAZE | 47K | 5% | 1/10W | |
| R354 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W | |
| R355 | 1-216-061-00 | METAL GLAZE | 3.3K | 5% | 1/10W | |
| R356 | 1-216-069-00 | METAL GLAZE | 6.8K | 5% | 1/10W | |
| R357 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W | |
| R358 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W | |
| R359 | 1-216-089-00 | METAL GLAZE | 47K | 5% | 1/10W | |
| R360 | 1-216-089-00 | METAL GLAZE | 47K | 5% | 1/10W | |
| R361 | 1-216-057-00 | METAL GLAZE | 2.2K | 5% | 1/10W | |
| R362 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W | |
| R363 | 1-216-055-00 | METAL GLAZE | 1.8K | 5% | 1/10W | |
| R364 | 1-216-059-00 | METAL GLAZE | 2.7K | 5% | 1/10W | |
| R365 | 1-216-047-00 | METAL GLAZE | 820 | 5% | 1/10W | |
| R366 | 1-216-059-00 | METAL GLAZE | 2.7K | 5% | 1/10W | |
| R367 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W | |
| R370 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W | |
| R372 | 1-216-023-00 | METAL GLAZE | 82 | 5% | 1/10W | |
| R376 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R377 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | |
| R378 | 1-216-097-00 | METAL GLAZE | 100K | 5% | 1/10W | |
| R379 | 1-216-089-00 | METAL GLAZE | 47K | 5% | 1/10W | |
| R380 | 1-216-071-00 | METAL GLAZE | 8.2K | 5% | 1/10W | |
| R381 | 1-216-093-00 | METAL GLAZE | 68K | 5% | 1/10W | |
| R382 | 1-216-103-00 | METAL GLAZE | 180K | 5% | 1/10W | |
| R383 | 1-216-115-00 | METAL GLAZE | 560K | 5% | 1/10W | |
| R384 | 1-216-029-00 | METAL GLAZE | 150 | 5% | 1/10W | |
| R385 | 1-216-085-00 | METAL GLAZE | 33K | 5% | 1/10W | |
| R386 | 1-216-061-00 | METAL GLAZE | 3.3K | 5% | 1/10W | |
| R387 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | |
| R388 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | |
| R389 | 1-216-101-00 | METAL GLAZE | 150K | 5% | 1/10W | |
| R390 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W | |
| R391 | 1-216-023-00 | METAL GLAZE | 82 | 5% | 1/10W | |
| R392 | 1-216-019-00 | METAL GLAZE | 56 | 5% | 1/10W | |
| R393 | 1-216-019-00 | METAL GLAZE | 56 | 5% | 1/10W | |
| R394 | 1-216-019-00 | METAL GLAZE | 56 | 5% | 1/10W | |
| R395 | 1-216-214-00 | METAL GLAZE | 4.7K | 5% | 1/8W | |
| R396 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | |
| R398 | 1-216-081-00 | METAL GLAZE | 22K | 5% | 1/10W | |
| R401 | 1-216-053-00 | METAL GLAZE | 1.5K | 5% | 1/10W | |

| REF.NO. | PART NO. | DESCRIPTION | | | | REMARK |
|---|--------------|-------------------------|-------|-----|-------|--------|
| R402 | 1-216-051-00 | METAL GLAZE | 1.2K | 5% | 1/10W | |
| R403 | 1-216-025-00 | METAL GLAZE | 100 | 5% | 1/10W | |
| R404 | 1-216-059-00 | METAL GLAZE | 2.7K | 5% | 1/10W | |
| R405 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W | |
| R406 | 1-216-061-00 | METAL GLAZE | 3.3K | 5% | 1/10W | |
| R407 | 1-216-047-00 | METAL GLAZE | 820 | 5% | 1/10W | |
| R410 | 1-216-184-00 | METAL GLAZE | 270 | 5% | 1/8W | |
| R412 | 1-216-053-00 | METAL GLAZE | 1.5K | 5% | 1/10W | |
| R1301 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W | |
| R1302 | 1-216-089-00 | METAL GLAZE | 47K | 5% | 1/10W | |
| R1303 | 1-216-089-00 | METAL GLAZE | 47K | 5% | 1/10W | |
| R1304 | 1-216-097-00 | METAL GLAZE | 100K | 5% | 1/10W | |
| R1305 | 1-216-001-00 | METAL GLAZE | 10 | 5% | 1/10W | |
| <VARIABLE RESISTOR> | | | | | | |
| RV331 | 1-238-012-11 | RES, ADJ, CARBON 1K | | | | |
| <CRYSTAL> | | | | | | |
| X331 | 1-567-307-11 | OSCILLATOR, CRYSTAL | | | | |
| X332 | 1-567-131-00 | OSCILLATOR, CRYSTAL | | | | |
| ***** | | | | | | |
| *1-633-408-11 F BOARD | | | | | | |
| ***** | | | | | | |
| *1-566-664-11 PIN, CONNECTOR 4P | | | | | | |
| <FUSE> | | | | | | |
| F1601 | 1-532-350-11 | FUSE, TIME-LAG 4A/250V | | | | |
| | 1-533-230-11 | HOLDER, FUSE; F1601 | | | | |
| <SWITCH> | | | | | | |
| S1701 | 1-571-433-11 | SWITCH, PUSH (AC POWER) | | | | |
| ***** | | | | | | |
| *A-1632-005-A A BOARD, COMPLETE | | | | | | |
| ***** | | | | | | |
| *1-560-290-00 PLUG, CONNECTOR (2.5MM PITCH) | | | | | | |
| *1-564-881-11 PLUG, CONNECTOR 4P | | | | | | |
| *1-564-886-11 PLUG, CONNECTOR 9P | | | | | | |
| *1-565-393-11 CONNECTOR, BOARD TO BOARD | | | | | | |
| *1-565-503-11 CONNECTOR, BOARD TO BOARD 12P | | | | | | |
| <CAPACITOR> | | | | | | |
| C101 | 1-126-233-11 | ELECT | 22MF | 20% | 50V | |
| C102 | 1-126-103-11 | ELECT | 470MF | 20% | 16V | |
| C104 | 1-124-910-11 | ELECT | 47MF | 20% | 50V | |
| C106 | 1-126-233-11 | ELECT | 22MF | 20% | 50V | |
| C108 | 1-136-165-00 | FILM | 0.1MF | 5% | 50V | |
| C109 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5% | 50V | |
| C111 | 1-124-925-11 | ELECT | 2.2MF | 20% | 50V | |
| C115 | 1-124-925-11 | ELECT | 2.2MF | 20% | 50V | |
| C127 | 1-124-122-11 | ELECT | 100MF | 20% | 50V | |
| C128 | 1-124-910-11 | ELECT | 47MF | 20% | 50V | |
| C129 | 1-124-910-11 | ELECT | 47MF | 20% | 50V | |
| C138 | 1-136-165-00 | FILM | 0.1MF | 5% | 50V | |
| C171 | 1-163-005-11 | CERAMIC CHIP | 470PF | 10% | 50V | |
| C172 | 1-163-005-11 | CERAMIC CHIP | 470PF | 10% | 50V | |

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

A C

| REF. NO. | PART NO. | DESCRIPTION | REMARK | REF. NO. | PART NO. | DESCRIPTION | REMARK |
|--------------|--------------|-------------------------|-----------|---------------|-------------------------------|----------------------|-------------|
| C177 | 1-102-074-00 | CERAMIC | 0.001MF | 10% | 50V | | |
| C181 | 1-101-004-00 | CERAMIC | 0.01MF | 50V | | | |
| <IC> | | | | <IF BLOCK> | | | |
| IC103 | 8-759-979-62 | IC PCF8574 | | VIF101 | 1-466-154-21 | IF BLOCK (IFG-389S) | |
| <COIL> | | | | ***** | | | |
| L100 | 1-410-116-11 | INDUCTOR | 0.56MMH | *A-1638-007-A | C BOARD, COMPLETE | | |
| L101 | 1-408-225-00 | INDUCTOR | 3.3UH | | ***** | | |
| L102 | 1-408-413-00 | INDUCTOR | 22UH | 1-506-348-99 | PIN, CONNECTOR 3P | | |
| L107 | 1-408-397-00 | INDUCTOR | 1UH | *1-508-765-00 | PIN, CONNECTOR (5MM PITCH) 3P | | |
| <TRANSISTOR> | | | | *1-568-878-51 | PIN, CONNECTOR 3P | | |
| Q113 | 8-729-271-22 | TRANSISTOR | 2SC2712-G | *1-568-881-51 | PIN, CONNECTOR 6P | | |
| Q114 | 8-729-271-22 | TRANSISTOR | 2SC2712-G | *4-379-160-01 | COVER (REAR LID), CV | | |
| Q115 | 8-729-271-22 | TRANSISTOR | 2SC2712-G | | | | |
| Q116 | 8-729-271-22 | TRANSISTOR | 2SC2712-G | *4-379-167-01 | COVER (MAIN), CV | | |
| Q125 | 8-729-900-89 | TRANSISTOR | DTC144ES | | | | |
| Q126 | 8-729-901-06 | TRANSISTOR | DTA144EK | <CAPACITOR> | | | |
| Q181 | 8-729-271-22 | TRANSISTOR | 2SC2712-G | C703 | 1-102-980-00 | CERAMIC | 270PF |
| <RESISTOR> | | | | C704 | 1-102-116-00 | CERAMIC | 680PF |
| JR230 | 1-216-295-00 | METAL GLAZE | 0 5% | C705 | 1-102-978-00 | CERAMIC | 220PF |
| JR252 | 1-216-296-00 | METAL GLAZE | 0 5% | C706 | 1-102-116-00 | CERAMIC | 680PF |
| JR253 | 1-216-296-00 | METAL GLAZE | 0 5% | C707 | 1-162-116-00 | CERAMIC | 680PF |
| JR255 | 1-216-296-00 | METAL GLAZE | 0 5% | | | | |
| JR256 | 1-216-296-00 | METAL GLAZE | 0 5% | C708 | 1-162-114-00 | CERAMIC | 0.0047MF |
| JR257 | 1-216-296-00 | METAL GLAZE | 0 5% | C709 | 1-102-116-00 | CERAMIC | 680PF |
| JR258 | 1-216-296-00 | METAL GLAZE | 0 5% | C710 | 1-123-947-00 | ELECT | 10MF |
| R101 | 1-216-025-00 | METAL GLAZE | 100 5% | C711 | 1-101-880-00 | CERAMIC | 47PF |
| R105 | 1-216-079-00 | METAL GLAZE | 18K 5% | C712 | 1-102-980-00 | CERAMIC | 270PF |
| R107 | 1-216-081-00 | METAL GLAZE | 22K 5% | | | | |
| R108 | 1-216-079-00 | METAL GLAZE | 18K 5% | C714 | 1-124-360-00 | ELECT | 1000MF |
| R110 | 1-249-429-11 | CARBON | 10K 5% | C716 | 1-162-622-11 | CERAMIC | 330PF |
| R111 | 1-216-061-00 | METAL GLAZE | 3.3K 5% | C717 | 1-102-114-00 | CERAMIC | 470PF |
| R116 | 1-216-023-00 | METAL GLAZE | 82 5% | C718 | 1-102-114-00 | CERAMIC | 470PF |
| R118 | 1-216-085-00 | METAL GLAZE | 33K 5% | C719 | 1-102-114-00 | CERAMIC | 470PF |
| R128 | 1-216-027-00 | METAL GLAZE | 120 5% | | | | |
| R129 | 1-216-057-00 | METAL GLAZE | 2.2K 5% | <DIODE> | | | |
| R130 | 1-216-057-00 | METAL GLAZE | 2.2K 5% | D701 | 8-719-929-16 | DIODE | HZS9.1NB3 |
| R157 | 1-216-049-00 | METAL GLAZE | 1K 5% | D702 | 8-719-911-19 | DIODE | 1SS119 |
| R158 | 1-249-409-11 | CARBON | 220 5% | D703 | 8-719-911-19 | DIODE | 1SS119 |
| R159 | 1-249-409-11 | CARBON | 220 5% | D704 | 8-719-911-19 | DIODE | 1SS119 |
| R161 | 1-216-089-00 | METAL GLAZE | 47K 5% | D705 | 8-719-911-19 | DIODE | 1SS119 |
| R162 | 1-216-095-00 | METAL GLAZE | 82K 5% | | | | |
| R163 | 1-216-095-00 | METAL GLAZE | 82K 5% | D706 | 8-719-911-19 | DIODE | 1SS119 |
| R164 | 1-216-075-00 | METAL GLAZE | 12K 5% | D707 | 8-719-911-19 | DIODE | 1SS119 |
| R165 | 1-216-075-00 | METAL GLAZE | 12K 5% | D708 | 8-719-911-19 | DIODE | 1SS119 |
| R167 | 1-216-059-00 | METAL GLAZE | 2.7K 5% | D709 | 8-719-911-19 | DIODE | 1SS119 |
| R168 | 1-216-089-00 | METAL GLAZE | 47K 5% | D710 | 8-719-911-19 | DIODE | 1SS119 |
| R169 | 1-216-059-00 | METAL GLAZE | 2.7K 5% | | | | |
| R181 | 1-216-049-00 | METAL GLAZE | 1K 5% | D711 | 8-719-300-33 | DIODE | RU-3AM |
| R182 | 1-216-065-00 | METAL GLAZE | 4.7K 5% | D713 | 8-719-911-19 | DIODE | 1SS119 |
| R193 | 1-216-073-00 | METAL GLAZE | 10K 5% | <JACK> | | | |
| R194 | 1-216-017-00 | METAL GLAZE | 47 5% | J701 | 1-526-990-11 | SOCKET, PICTURE TUBE | |
| R195 | 1-216-017-00 | METAL GLAZE | 47 5% | | | | |
| R196 | 1-216-113-00 | METAL GLAZE | 470K 5% | <COIL> | | | |
| <TUNER> | | | | L704 | 1-410-878-11 | INDUCTOR | 33UH |
| TU101A | 1-465-301-11 | TUNER, ET (UV-816(PLL)) | | <TRANSISTOR> | | | |
| | | | | Q702 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| | | | | Q703 | 8-729-906-70 | TRANSISTOR | BF871 |
| | | | | Q704 | 8-729-200-17 | TRANSISTOR | 2SA1091-0 |
| | | | | Q705 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| | | | | Q706 | 8-729-906-70 | TRANSISTOR | BF871 |



The components identified by shading and mark **A** are critical for safety.
Replace only with part number specified.

| REF.NO. | PART NO. | DESCRIPTION | REMARK | REF.NO. | PART NO. | DESCRIPTION | REMARK |
|---------------------------------|-------------------------------|----------------------------|---------------|---------------|--------------|----------------------|----------|
| Q707 | 8-729-200-17 | TRANSISTOR 2SA1091-0 | | *4-341-751-01 | EYELET | | |
| Q708 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | | *4-341-752-01 | EYELET | | |
| Q709 | 8-729-906-70 | TRANSISTOR BF871 | | *4-368-683-01 | SPRING | | |
| Q710 | 8-729-200-17 | TRANSISTOR 2SA1091-0 | | | | | |
| <RESISTOR> | | | | <CAPACITOR> | | | |
| R704 | 1-216-486-00 | METAL OXIDE | 8.2K 5% 3W F | C002 | 1-163-009-11 | CERAMIC CHIP 0.001MF | 10% 50V |
| R705 | 1-202-824-00 | SOLID | 3.3K 10% 1/2W | C003 | 1-123-875-11 | ELECT 10MF | 20% 50V |
| R706 | 1-249-409-11 | CARBON | 220 5% 1/4W | C004 | 1-124-120-11 | ELECT 220MF | 20% 16V |
| R707 | 1-249-412-11 | CARBON | 390 5% 1/4W | C005 | 1-124-791-11 | ELECT 1MF | 20% 50V |
| R708 | 1-249-401-11 | CARBON | 47 5% 1/4W | C006 | 1-163-125-00 | CERAMIC CHIP 220PF | 5% 50V |
| R709 | 1-202-844-00 | SOLID | 330K 10% 1/2W | C007 | 1-163-125-00 | CERAMIC CHIP 220PF | 5% 50V |
| R710 | 1-215-465-00 | METAL | 68K 1% 1/6W | C008 | 1-163-109-00 | CERAMIC CHIP 47PF | 5% 50V |
| R711 | 1-249-426-11 | CARBON | 5.6K 5% 1/4W | C009 | 1-163-109-00 | CERAMIC CHIP 47PF | 5% 50V |
| R712 | 1-249-417-11 | CARBON | 1K 5% 1/4W | C010 | 1-124-120-11 | ELECT 220MF | 20% 16V |
| R713 | 1-215-471-00 | METAL | 120K 1% 1/6W | C011 | 1-164-232-11 | CERAMIC CHIP 0.01MF | 50V |
| R714 | 1-216-486-00 | METAL OXIDE | 8.2K 5% 3W F | C012 | 1-123-875-11 | ELECT 10MF | 20% 50V |
| R715 | 1-202-824-00 | SOLID | 3.3K 10% 1/2W | C013 | 1-106-220-00 | MYLAR 0.1MF | 10% 100V |
| R716 | 1-249-409-11 | CARBON | 220 5% 1/4W | C014 | 1-106-220-00 | MYLAR 0.1MF | 10% 100V |
| R717 | 1-249-415-11 | CARBON | 680 5% 1/4W | C015 | 1-124-902-00 | ELECT 0.47MF | 20% 50V |
| R718 | 1-202-814-11 | SOLID | 33K 10% 1/2W | C016 | 1-163-121-00 | CERAMIC CHIP 150PF | 5% 50V |
| R719 | 1-249-401-11 | CARBON | 47 5% 1/4W | C017 | 1-106-220-00 | MYLAR 0.1MF | 10% 100V |
| R720 | 1-249-423-11 | CARBON | 3.3K 5% 1/4W | C018 | 1-163-127-00 | CERAMIC CHIP 270PF | 5% 50V |
| R721 | 1-202-842-11 | SOLID | 220K 10% 1/2W | C019 | 1-106-383-00 | MYLAR 0.047MF | 10% 100V |
| R722 | 1-202-848-00 | SOLID | 680K 10% 1/2W | C020 | 1-124-917-11 | ELECT 33MF | 20% 50V |
| R723 | 1-249-417-11 | CARBON | 1K 5% 1/4W | C021 | 1-163-117-00 | CERAMIC CHIP 100PF | 5% 50V |
| R724 | 1-202-846-00 | SOLID | 470K 10% 1/2W | C022 | 1-164-232-11 | CERAMIC CHIP 0.01MF | 50V |
| R725 | 1-202-838-00 | SOLID | 100K 10% 1/2W | C023 | 1-163-117-00 | CERAMIC CHIP 100PF | 5% 50V |
| R726 | 1-202-824-00 | SOLID | 3.3K 10% 1/2W | C024 | 1-163-117-00 | CERAMIC CHIP 100PF | 5% 50V |
| R727 | 1-249-409-11 | CARBON | 220 5% 1/4W | C025 | 1-163-117-00 | CERAMIC CHIP 100PF | 5% 50V |
| R728 | 1-216-347-11 | METAL OXIDE | 0.68 5% 1W F | C027 | 1-124-910-11 | ELECT 47MF | 20% 50V |
| R729 | 1-249-416-11 | CARBON | 820 5% 1/4W | C029 | 1-163-081-00 | CERAMIC CHIP 0.22MF | 25V |
| R730 | 1-249-401-11 | CARBON | 47 5% 1/4W | C030 | 1-163-081-00 | CERAMIC CHIP 0.22MF | 25V |
| R731 | 1-249-423-11 | CARBON | 3.3K 5% 1/4W | C031 | 1-163-081-00 | CERAMIC CHIP 0.22MF | 25V |
| R732 | 1-249-415-11 | CARBON | 680 5% 1/4W | C032 | 1-163-081-00 | CERAMIC CHIP 0.22MF | 25V |
| R733 | 1-249-415-11 | CARBON | 680 5% 1/4W | C251 | 1-124-791-11 | ELECT 1MF | 20% 50V |
| R734 | 1-249-405-11 | CARBON | 100 5% 1/4W | C252 | 1-126-233-11 | ELECT 22MF | 20% 50V |
| R735 | 1-215-493-00 | METAL | 1K 1% 1/6W | C253 | 1-163-009-11 | CERAMIC CHIP 0.001MF | 10% 50V |
| R736 | 1-216-486-00 | METAL OXIDE | 8.2K 5% 3W F | C254 | 1-106-220-00 | MYLAR 0.1MF | 10% 100V |
| R737 | 1-215-485-00 | METAL | 470K 1% 1/6W | C255 | 1-124-636-00 | ELECT 3300MF | 20% 25V |
| R739 | 1-249-417-11 | CARBON | 1K 5% 1/4W | C261 | 1-124-791-11 | ELECT 1MF | 20% 50V |
| <VARIABLE RESISTOR> | | | | C262 | 1-126-233-11 | ELECT 22MF | 20% 50V |
| RV701 | 1-230-641-11 | RES. ADJ. METAL GLAZE 2.2M | | C263 | 1-163-009-11 | CERAMIC CHIP 0.001MF | 10% 50V |
| RV702A | 1-230-619-11 | RES. ADJ. METAL GLAZE 110M | | C264 | 1-106-220-00 | MYLAR 0.1MF | 10% 100V |
| RV703 | 1-237-749-11 | RES. ADJ. CARBON 2200 | | C265 | 1-124-564-11 | ELECT 4700MF | 20% 25V |
| RV704 | 1-237-749-11 | RES. ADJ. CARBON 2200 | | C501 | 1-124-927-11 | ELECT 4.7MF | 20% 50V |
| ***** | | | | C502 | 1-124-927-11 | ELECT 4.7MF | 20% 50V |
| *A-1642-008-A D BOARD, COMPLETE | | | | C503 | 1-106-371-00 | MYLAR 0.015MF | 10% 400V |
| ***** | | | | C504 | 1-163-121-00 | CERAMIC CHIP 150PF | 5% 50V |
| *1-508-765-00 | PIN, CONNECTOR (5MM PITCH) 3P | | | C505 | 1-108-794-11 | MYLAR 0.0015MF | 5% 50V |
| *1-508-786-00 | PIN, CONNECTOR (5MM PITCH) 2P | | | C506 | 1-106-375-12 | MYLAR 0.022MF | 10% 250V |
| *1-560-290-00 | PLUG, CONNECTOR (2.5MM PITCH) | | | C507 | 1-130-783-00 | MYLAR 0.33MF | 10% 100V |
| *1-565-394-11 | PIN, BOARD TO BOARD CONNECTOR | | | C508 | 1-106-375-12 | MYLAR 0.022MF | 10% 250V |
| *1-566-367-11 | CONNECTOR, HINGE (RECEPTACLE) | | | C509 | 1-106-220-00 | MYLAR 0.1MF | 10% 100V |
| 1-568-106-11 | PIN, CONNECTOR 4P | | | C510 | 1-161-959-00 | CERAMIC 22PF | 10% 500V |
| *1-568-536-11 | PLUG (MINIATURE DY) 6P | | | C511 | 1-108-620-11 | MYLAR 0.0033MF | 10% 100V |
| *1-568-878-51 | PIN, CONNECTOR 3P | | | C512 | 1-106-220-00 | MYLAR 0.1MF | 10% 100V |
| *1-568-881-51 | PIN, CONNECTOR 6P | | | C513 | 1-163-125-00 | CERAMIC CHIP 220PF | 5% 50V |
| *1-568-882-51 | PIN, CONNECTOR 7P | | | C514 | 1-106-228-00 | MYLAR 0.22MF | 10% 100V |
| 4-200-001-01 | HOLDER, IC | | | C515 | 1-124-791-11 | ELECT 1MF | 20% 50V |
| | | | | C516 | 1-108-614-11 | MYLAR 0.001MF | 10% 100V |
| | | | | C517 | 1-124-252-00 | ELECT 0.33MF | 20% 50V |
| | | | | C518 | 1-124-902-00 | ELECT 0.47MF | 20% 50V |
| | | | | C519 | 1-136-171-00 | FILM 0.33MF | 5% 50V |

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

D

| REF.NO. | PART NO. | DESCRIPTION | REMARK | REF.NO. | PART NO. | DESCRIPTION | REMARK |
|---------------|--------------|-----------------------|----------|----------------|--------------|---------------------|----------|
| C520 | 1-164-161-11 | CERAMIC CHIP 0.0022MF | 10% 50V | C822 | 1-163-005-11 | CERAMIC CHIP 470PF | 10% 50V |
| C521 | 1-106-220-00 | MYLAR 0.1MF | 10% 100V | C823 | 1-106-359-00 | MYLAR 0.0047MF | 10% 400V |
| C522 | 1-124-122-11 | ELECT 100MF | 20% 50V | C824 | 1-102-212-00 | CERAMIC 820PF | 10% 500V |
| C523 | 1-108-614-11 | MYLAR 0.001MF | 10% 100V | C825 | 1-106-375-12 | MYLAR 0.022MF | 10% 250V |
| C524 | 1-108-798-11 | MYLAR 0.0033MF | 5% 50V | C1601 Δ | 1-136-518-11 | FILM 0.33MF | 20% 300V |
| C525 | 1-163-117-00 | CERAMIC CHIP 100PF | 5% 50V | C1602 Δ | 1-136-519-11 | FILM 0.47MF | 20% 300V |
| C526 | 1-163-101-00 | CERAMIC CHIP 22PF | 5% 50V | C1603 Δ | 1-162-578-51 | CERAMIC 0.0047MF | 20% 400V |
| C527 | 1-106-220-00 | MYLAR 0.1MF | 10% 100V | C1604 Δ | 1-162-578-51 | CERAMIC 0.0047MF | 20% 400V |
| C531 | 1-124-190-00 | ELECT 680MF | 10% 25V | C1605 Δ | 1-162-578-51 | CERAMIC 0.0047MF | 20% 400V |
| C532 | 1-124-514-11 | ELECT 100MF | 20% 50V | C1606 Δ | 1-162-578-51 | CERAMIC 0.0047MF | 20% 400V |
| C533 | 1-106-216-00 | MYLAR 0.068MF | 10% 100V | C1607 Δ | 1-161-964-61 | CERAMIC 0.0047MF | 250V |
| C534 | 1-124-120-11 | ELECT 220MF | 20% 16V | <FILTER> | | | |
| C536 | 1-131-365-00 | TANTALUM 10MF | 10% 16V | CF001 | 1-577-364-11 | VIBRATOR, CERAMIC | |
| C537 | 1-124-791-11 | ELECT 1MF | 20% 50V | CF501 | 1-567-888-11 | OSCILLATOR, CERAMIC | |
| C538 | 1-108-614-11 | MYLAR 0.001MF | 10% 100V | <DIODE> | | | |
| C539 | 1-163-129-00 | CERAMIC CHIP 330PF | 5% 50V | D001 | 8-719-911-19 | DIODE 1SS119 | |
| C540 | 1-163-009-11 | CERAMIC CHIP 0.001MF | 10% 50V | D002 | 8-719-929-03 | DIODE HZS6.8NB3 | |
| C592 | 1-124-122-11 | ELECT 100MF | 20% 50V | D003 | 8-719-911-19 | DIODE 1SS119 | |
| C593 | 1-163-129-00 | CERAMIC CHIP 330PF | 5% 50V | D004 | 8-719-911-19 | DIODE 1SS119 | |
| C601 Δ | 1-161-964-61 | CERAMIC 0.0047MF | 250V | D005 | 8-719-109-89 | DIODE RD5.6ES-B2 | |
| C602 Δ | 1-161-964-61 | CERAMIC 0.0047MF | 250V | D006 | 8-719-929-71 | DIODE HZS33NB1 | |
| C603 Δ | 1-161-964-61 | CERAMIC 0.0047MF | 250V | D007 | 8-719-911-19 | DIODE 1SS119 | |
| C604 Δ | 1-125-318-11 | ELECT(BLOCK) 220MF | 20% 400V | D009 | 8-719-109-89 | DIODE RD5.6ES-B2 | |
| C605 | 1-124-510-11 | ELECT 220MF | 20% 35V | D010 | 8-719-120-78 | DIODE RD6.2ES-L3 | |
| C606 | 1-163-137-00 | CERAMIC CHIP 680PF | 5% 50V | D011 | 8-719-120-78 | DIODE RD6.2ES-L3 | |
| C607 | 1-130-834-00 | MYLAR 1MF | 10% 63V | D013 | 8-719-109-89 | DIODE RD5.6ES-B2 | |
| C608 | 1-124-927-11 | ELECT 4.7MF | 20% 50V | D271 | 8-719-110-36 | DIODE RD13ES-B2 | |
| C611 | 1-124-910-11 | ELECT 47MF | 20% 50V | D272 | 8-719-911-19 | DIODE 1SS119 | |
| C612 | 1-108-614-11 | MYLAR 0.001MF | 10% 100V | D501 | 8-719-911-19 | DIODE 1SS119 | |
| C613 | 1-136-539-11 | FILM 0.0022MF | 3% 2KV | D504 | 8-719-911-55 | DIODE U05G | |
| C614 | 1-102-030-00 | CERAMIC 330PF | 10% 500V | D506 | 8-719-800-76 | DIODE 1SS226 | |
| C615 | 1-124-557-11 | ELECT 1000MF | 20% 25V | D508 | 8-719-911-19 | DIODE 1SS119 | |
| C616 | 1-102-030-00 | CERAMIC 330PF | 10% 500V | D509 | 8-719-911-19 | DIODE 1SS119 | |
| C617 | 1-124-122-11 | ELECT 100MF | 20% 50V | D511 | 8-719-911-55 | DIODE U05G | |
| C618 | 1-162-115-00 | CERAMIC 330PF | 10% 2KV | D512 | 8-719-911-55 | DIODE U05G | |
| C619 | 1-124-556-11 | ELECT 2200MF | 20% 16V | D513 | 8-719-928-85 | DIODE HZS4.7NB2 | |
| C620 | 1-136-173-00 | FILM 0.47MF | 5% 50V | D514 | 8-719-911-19 | DIODE 1SS119 | |
| C621 | 1-124-347-00 | ELECT 100MF | 20% 160V | D515 | 8-719-911-19 | DIODE 1SS119 | |
| C622 | 1-124-556-11 | ELECT 2200MF | 20% 16V | D601 Δ | 8-719-946-90 | DIODE KBU4JL-6088 | |
| C623 | 1-124-910-11 | ELECT 47MF | 20% 50V | D602 | 8-719-300-33 | DIODE RU-3AM | |
| C624 | 1-124-122-11 | ELECT 100MF | 20% 50V | D603 | 8-719-911-55 | DIODE U05G | |
| C625 | 1-124-360-00 | ELECT 1000MF | 20% 16V | D604 | 8-719-911-55 | DIODE U05G | |
| C626 | 1-123-875-11 | ELECT 10MF | 20% 50V | D605 | 8-719-911-55 | DIODE U05G | |
| C627 | 1-163-009-11 | CERAMIC CHIP 0.001MF | 10% 50V | D606 | 8-719-300-33 | DIODE RU-3AM | |
| C631 | 1-124-927-11 | ELECT 4.7MF | 20% 50V | D607 | 8-719-300-33 | DIODE RU-3AM | |
| C632 | 1-163-009-11 | CERAMIC CHIP 0.001MF | 10% 50V | D608 | 8-719-300-33 | DIODE RU-3AM | |
| C633 | 1-163-117-00 | CERAMIC CHIP 100PF | 5% 50V | D609 | 8-719-929-71 | DIODE HZS33NB1 | |
| C801 | 1-126-105-11 | ELECT 1000MF | 20% 35V | D610 | 8-719-300-59 | DIODE CTU-12S | |
| C802 | 1-102-030-00 | CERAMIC 330PF | 10% 500V | D611 | 8-719-900-26 | DIODE ERD29-08J | |
| C804 | 1-123-948-00 | ELECT 22MF | 20% 250V | D612 | 8-719-300-59 | DIODE CTU-12S | |
| C805 | 1-162-114-00 | CERAMIC 0.0047MF | 2KV | D613 | 8-719-979-85 | DIODE EGP20G | |
| C806 | 1-106-220-00 | MYLAR 0.1MF | 10% 100V | D614 | 8-719-979-85 | DIODE EGP20G | |
| C807 | 1-106-395-00 | MYLAR 0.15MF | 10% 200V | D616 | 8-719-120-78 | DIODE RD6.2ES-L3 | |
| C810 | 1-123-024-21 | ELECT 33MF | 160V | D617 | 8-719-911-19 | DIODE 1SS119 | |
| C811 | 1-136-113-00 | FILM 2MF | 5% 200V | D618 | 8-719-109-89 | DIODE RD5.6ES-B2 | |
| C812 | 1-124-634-11 | ELECT 1MF | 20% 250V | D619 | 8-719-929-71 | DIODE HZS33NB1 | |
| C813 | 1-102-212-00 | CERAMIC 820PF | 10% 500V | D620 | 8-719-800-76 | DIODE 1SS226 | |
| C814 Δ | 1-161-731-11 | CERAMIC 0.001MF | 10% 2KV | D621 | 8-719-929-71 | DIODE HZS33NB1 | |
| C815 | 1-136-540-11 | FILM 0.82MF | 5% 200V | D622 | 8-719-911-19 | DIODE 1SS119 | |
| C817 | 1-136-591-11 | FILM 0.017MF | 3% 1.4KV | D623 | 8-719-911-19 | DIODE 1SS119 | |
| C818 | 1-136-759-11 | FILM 0.039MF | 10% 630V | D624 | 8-719-911-19 | DIODE 1SS119 | |
| C819 Δ | 1-161-731-11 | CERAMIC 0.001MF | 10% 2KV | | | | |
| C820 | 1-106-218-00 | MYLAR 0.0082MF | 10% 400V | | | | |
| C821 Δ | 1-162-134-51 | CERAMIC 470PF | 10% 2KV | | | | |

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

D

| REF.NO. | PART NO. | DESCRIPTION | REMARK | REF.NO. | PART NO. | DESCRIPTION | REMARK |
|-----------------|---------------|-------------------------------------|--------|--------------|--------------|---------------------------|--------|
| D630 | 8-719-110-39 | DIODE RD15ES-B1 | | <TRANSISTOR> | | | |
| D801 | 8-719-300-33 | DIODE RU-3AM | | Q001 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| D802 | 8-719-300-33 | DIODE RU-3AM | | Q002 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| D803 | 8-719-300-65 | DIODE ES1F | | Q003 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| D804 | 8-719-911-55 | DIODE U05G | | Q004 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| D805 | 8-719-911-55 | DIODE U05G | | Q005 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| D806 | 8-719-945-80 | DIODE ERC06-15S | | Q006 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| D807 | 8-719-945-80 | DIODE ERC06-15S | | Q007 | 8-729-271-22 | TRANSISTOR 2SC2712-G | |
| D808 | 8-719-900-26 | DIODE ERD29-08J | | Q008 | 8-729-271-22 | TRANSISTOR 2SC2712-G | |
| <IC> | | | | Q009 | 8-729-271-22 | TRANSISTOR 2SC2712-G | |
| IC001 | 8-759-501-66 | IC SDA2083-B012 | | Q251 | 8-729-271-22 | TRANSISTOR 2SC2712-G | |
| IC002 | 8-752-332-82 | IC CXD1050A-09P | | Q261 | 8-729-271-22 | TRANSISTOR 2SC2712-G | |
| IC003 | 8-759-945-58 | IC RC4558P | | Q271 | 8-729-271-22 | TRANSISTOR 2SC2712-G | |
| IC005 | 8-759-748-56 | IC SDA2546 | | Q502 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| IC251 | 8-759-988-94 | IC TDA2050 | | Q505 | 8-729-140-96 | TRANSISTOR 2SD774-34 | |
| IC261 | 4-201-023-01 | SPACER, INSULATING; IC251 | | Q506 | 8-729-140-97 | TRANSISTOR 2SB734-34 | |
| | 4-812-134-00 | RIVET NYLON, 3.5; IC251 | | Q507 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| | 8-759-988-94 | IC TDA2050 | | Q598 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| | 4-201-023-01 | SPACER, INSULATING; IC261 | | Q601 | 8-729-111-67 | TRANSISTOR 2SB1094-L | |
| IC501 | 4-812-134-00 | RIVET NYLON, 3.5; IC261 | | Q602 | 8-729-209-02 | TRANSISTOR 2SD1548-LB | |
| | 8-759-970-73 | IC TEA2028B | | Q603 | 8-729-111-67 | TRANSISTOR 2SB1094-L | |
| | 8-759-944-57 | IC TDA8170 | | Q604 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| | 8-759-988-95 | IC TEA2260 | | Q605 | 8-729-271-22 | TRANSISTOR 2SC2712-G | |
| IC601 | 8-759-988-95 | IC TEA2260 | | Q606 | 8-729-271-22 | TRANSISTOR 2SC2712-G | |
| IC604 | 8-759-144-84 | IC UPC24M05HF | | Q607 | 8-729-920-92 | TRANSISTOR 2SD2096-EF | |
| IC608 | 8-759-037-26 | IC TYA7812CT | | Q608 | 8-729-271-22 | TRANSISTOR 2SC2712-G | |
| <COIL> | | | | Q609 | 8-729-320-62 | TRANSISTOR 2SD789-34 | |
| L001 | 1-408-414-00 | INDUCTOR 27UH | | Q801 | 8-729-271-22 | TRANSISTOR 2SC2712-G | |
| L501 | 1-408-225-00 | INDUCTOR 3.3UH | | Q804 | 8-729-304-50 | TRANSISTOR 2SD1941-06 | |
| L601 | *1-420-872-00 | COIL, AIR CORE | | Q805 | 8-729-119-80 | TRANSISTOR 2SC2688-LK | |
| L602 | 1-410-396-41 | FERRITE BEAD INDUCTOR | | <RESISTOR> | | | |
| L603 | 1-410-396-41 | FERRITE BEAD INDUCTOR | | JR1 | 1-216-295-00 | METAL GLAZE 0 5% 1/10W | |
| L604 | 1-410-671-31 | INDUCTOR 47UH | | R001 | 1-216-041-00 | METAL GLAZE 470 5% 1/10W | |
| L605 | 1-459-585-11 | COIL (WITH CORE) (DRUM TYPE) | | R002 | 1-216-041-00 | METAL GLAZE 470 5% 1/10W | |
| L606 | 1-421-013-00 | COIL (HORIZONTAL CHOKE) 25UH | | R003 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| L607 | 1-410-671-31 | INDUCTOR 47UH | | R004 | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W | |
| L801 | 1-459-087-00 | COIL, HCC DUST CORE 3.9MMH | | R005 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| L803 | 1-459-104-00 | COIL, DUST CORE | | R006 | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W | |
| L804 | 1-408-239-00 | INDUCTOR 4.7MMH | | R007 | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W | |
| L805 Δ | 1-459-907-22 | COIL, HORIZONTAL LINEARITY | | R008 | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W | |
| L806 | 1-459-087-00 | COIL, HCC DUST CORE 3.9MMH | | R009 | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W | |
| L809 | *1-420-872-00 | COIL, AIR CORE | | R010 | 1-216-041-00 | METAL GLAZE 470 5% 1/10W | |
| L810 Δ | 1-421-794-21 | TRANSFORMER, FERRITE (PMT) | | R011 | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W | |
| <TRANSFORMER> | | | | R013 | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W | |
| LF1601 Δ | 1-421-866-12 | LFT | | R014 | 1-216-071-00 | METAL GLAZE 8.2K 5% 1/10W | |
| LF1602 Δ | 1-421-776-11 | LFT | | R015 | 1-216-061-00 | METAL GLAZE 3.3K 5% 1/10W | |
| LF1603 Δ | 1-421-592-21 | TRANSFORMER, FERRITE | | R016 | 1-216-085-00 | METAL GLAZE 33K 5% 1/10W | |
| T601 Δ | 1-450-037-11 | S.R.T | | R017 | 1-216-748-11 | METAL GLAZE 39K 5% 1/10W | |
| T602 Δ | 1-424-277-11 | TRANSFORMER, TRIGGER PULSE | | R018 | 1-216-095-00 | METAL GLAZE 82K 5% 1/10W | |
| T801 Δ | 1-437-090-21 | HDT | | R019 | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W | |
| T802 Δ | 1-439-416-11 | TRANSFORMER ASSY, FLYBACK (UX-1600) | | R020 | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W | |
| <IC LINK> | | | | R021 | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W | |
| PS601 Δ | 1-532-984-91 | LINK, IC (ICP-N50) 2A | | R022 | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W | |
| PS602 Δ | 1-532-984-91 | LINK, IC (ICP-N50) 2A | | R023 | 1-216-035-00 | METAL GLAZE 270 5% 1/10W | |
| PS603 Δ | 1-532-679-91 | LINK, IC (ICP-N15) 0.6A | | R024 | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W | |
| | | | | R025 | 1-216-025-00 | METAL GLAZE 100 5% 1/10W | |
| | | | | R026 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| | | | | R027 | 1-216-025-00 | METAL GLAZE 100 5% 1/10W | |
| | | | | R028 | 1-216-025-00 | METAL GLAZE 100 5% 1/10W | |
| | | | | R029 | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W | |
| | | | | R030 | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W | |
| | | | | R031 | 1-216-081-00 | METAL GLAZE 22K 5% 1/10W | |
| | | | | R032 | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W | |

| REF. NO. | PART NO. | DESCRIPTION | REMARK | REF. NO. | PART NO. | DESCRIPTION | REMARK |
|----------|--------------|-------------|---------------|----------|--------------|-------------|---------------|
| R033 | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W | R271 | 1-216-045-00 | METAL GLAZE | 680 5% 1/10W |
| R034 | 1-216-077-00 | METAL GLAZE | 15K 5% 1/10W | R272 | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W |
| R035 | 1-216-081-00 | METAL GLAZE | 22K 5% 1/10W | R273 | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W |
| R036 | 1-216-079-00 | METAL GLAZE | 18K 5% 1/10W | R500 | 1-216-115-00 | METAL GLAZE | 560K 5% 1/10W |
| R037 | 1-216-067-00 | METAL GLAZE | 5.6K 5% 1/10W | R501 | 1-216-041-00 | METAL GLAZE | 470 5% 1/10W |
| R038 | 1-216-063-00 | METAL GLAZE | 3.9K 5% 1/10W | R502 | 1-216-033-00 | METAL GLAZE | 220 5% 1/10W |
| R039 | 1-216-081-00 | METAL GLAZE | 22K 5% 1/10W | R503 | 1-216-035-00 | METAL GLAZE | 270 5% 1/10W |
| R040 | 1-216-077-00 | METAL GLAZE | 15K 5% 1/10W | R504 | 1-249-420-11 | CARBON | 1.8K 5% 1/4W |
| R041 | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W | R505 | 1-216-077-00 | METAL GLAZE | 15K 5% 1/10W |
| R042 | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W | R506 | 1-216-071-00 | METAL GLAZE | 8.2K 5% 1/10W |
| R043 | 1-216-041-00 | METAL GLAZE | 470 5% 1/10W | R509 | 1-216-063-00 | METAL GLAZE | 3.9K 5% 1/10W |
| R044 | 1-216-097-00 | METAL GLAZE | 100K 5% 1/10W | R510 | 1-216-067-00 | METAL GLAZE | 5.6K 5% 1/10W |
| R045 | 1-216-061-00 | METAL GLAZE | 3.3K 5% 1/10W | R514 | 1-216-033-00 | METAL GLAZE | 220 5% 1/10W |
| R046 | 1-216-085-00 | METAL GLAZE | 33K 5% 1/10W | R515 | 1-216-061-00 | METAL GLAZE | 3.3K 5% 1/10W |
| R047 | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W | R517 | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W |
| R048 | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W | R518 | 1-216-089-00 | METAL GLAZE | 47K 5% 1/10W |
| R049 | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W | R519 | 1-216-081-00 | METAL GLAZE | 22K 5% 1/10W |
| R050 | 1-216-037-00 | METAL GLAZE | 5.6K 5% 1/10W | R520 | 1-216-037-00 | METAL GLAZE | 330 5% 1/10W |
| R051 | 1-216-041-00 | METAL GLAZE | 470 5% 1/10W | R521 | 1-216-025-00 | METAL GLAZE | 100 5% 1/10W |
| R052 | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W | R522 | 1-215-469-00 | METAL | 100K 1% 1/6W |
| R053 | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W | R523 | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W |
| R054 | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W | R524 | 1-216-057-00 | METAL GLAZE | 2.2K 5% 1/10W |
| R055 | 1-216-037-00 | METAL GLAZE | 330 5% 1/10W | R526 | 1-249-409-11 | CARBON | 220 5% 1/4W F |
| R056 | 1-216-025-00 | METAL GLAZE | 100 5% 1/10W | R527 | 1-216-077-00 | METAL GLAZE | 15K 5% 1/10W |
| R057 | 1-216-033-00 | METAL GLAZE | 220 5% 1/10W | R528 | 1-216-031-00 | METAL GLAZE | 180 5% 1/10W |
| R058 | 1-216-063-00 | METAL GLAZE | 3.9K 5% 1/10W | R529 | 1-216-069-00 | METAL GLAZE | 6.8K 5% 1/10W |
| R059 | 1-249-417-11 | CARBON | 1K 5% 1/4W | R530 | 1-249-448-11 | CARBON | 1.2 5% 1/4W F |
| R060 | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W | R531 | 1-216-099-00 | METAL GLAZE | 120K 5% 1/10W |
| R061 | 1-249-417-11 | CARBON | 1K 5% 1/4W | R532 | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W |
| R062 | 1-249-417-11 | CARBON | 1K 5% 1/4W | R533 | 1-216-295-00 | METAL GLAZE | 0 5% 1/10W |
| R063 | 1-249-429-11 | CARBON | 10K 5% 1/4W | R534 | 1-216-119-00 | METAL GLAZE | 820K 5% 1/10W |
| R064 | 1-249-417-11 | CARBON | 1K 5% 1/4W | R535 | 1-249-749-00 | CARBON | 2.2M 5% 1/4W |
| R065 | 1-249-429-11 | CARBON | 10K 5% 1/4W | R536 | 1-216-129-00 | METAL GLAZE | 2.2M 5% 1/10W |
| R066 | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W | R537 | 1-216-083-00 | METAL GLAZE | 27K 5% 1/10W |
| R067 | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W | R538 | 1-216-101-00 | METAL GLAZE | 150K 5% 1/10W |
| R068 | 1-249-417-11 | CARBON | 1K 5% 1/4W | R539 | 1-216-101-00 | METAL GLAZE | 150K 5% 1/10W |
| R069 | 1-249-417-11 | CARBON | 1K 5% 1/4W | R540 | 1-216-013-00 | METAL GLAZE | 33 5% 1/10W |
| R070 | 1-249-417-11 | CARBON | 1K 5% 1/4W | R541 | 1-216-091-00 | METAL GLAZE | 56K 5% 1/10W |
| R071 | 1-249-417-11 | CARBON | 1K 5% 1/4W | R542 | 1-216-308-00 | METAL GLAZE | 4.7 5% 1/10W |
| R072 | 1-249-417-11 | CARBON | 1K 5% 1/4W | R543 | 1-249-451-11 | CARBON | 2.2 5% 1/4W |
| R073 | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W | R544 | 1-247-745-11 | CARBON | 330 5% 1/2W |
| R074 | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W | R545 | 1-216-081-00 | METAL GLAZE | 22K 5% 1/10W |
| R075 | 1-216-033-00 | METAL GLAZE | 220 5% 1/10W | R546 | 1-216-083-00 | METAL GLAZE | 27K 5% 1/10W |
| R076 | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W | R547 | 1-216-061-00 | METAL GLAZE | 3.3K 5% 1/10W |
| R077 | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W | R548 | 1-216-349-00 | METAL OXIDE | 1 5% 1W F |
| R078 | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W | R549 | 1-216-454-11 | METAL OXIDE | 390 5% 2W F |
| R251 | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W | R550 | 1-216-095-00 | METAL GLAZE | 82K 5% 1/10W |
| R252 | 1-216-039-00 | METAL GLAZE | 390 5% 1/10W | R551 | 1-216-129-00 | METAL GLAZE | 2.2M 5% 1/10W |
| R253 | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W | R553 | 1-216-869-11 | METAL OXIDE | 1K 5% 1W |
| R254 | 1-216-357-00 | METAL OXIDE | 4.7 5% 1W F | R554 | 1-216-037-00 | METAL GLAZE | 330 5% 1/10W |
| R255 | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W | R555 | 1-216-129-00 | METAL GLAZE | 2.2M 5% 1/10W |
| R256 | 1-216-115-00 | METAL GLAZE | 560K 5% 1/10W | R556 | 1-216-025-00 | METAL GLAZE | 100 5% 1/10W |
| R257 | 1-216-077-00 | METAL GLAZE | 15K 5% 1/10W | R557 | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W |
| R258 | 1-215-869-11 | METAL OXIDE | 1K 5% 1W F | R558 | 1-216-113-00 | METAL GLAZE | 470K 5% 1/10W |
| R259 | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W | R559 | 1-216-069-00 | METAL GLAZE | 6.8K 5% 1/10W |
| R261 | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W | R560 | 1-216-037-00 | METAL GLAZE | 330 5% 1/10W |
| R262 | 1-216-039-00 | METAL GLAZE | 390 5% 1/10W | R561 | 1-216-107-00 | METAL GLAZE | 270K 5% 1/10W |
| R263 | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W | R570 | 1-216-045-00 | METAL GLAZE | 680 5% 1/10W |
| R264 | 1-216-357-00 | METAL OXIDE | 4.7 5% 1W F | R591 | 1-216-047-00 | METAL GLAZE | 820 5% 1/10W |
| R265 | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W | R592 | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W |
| R266 | 1-216-115-00 | METAL GLAZE | 560K 5% 1/10W | R593 | 1-216-053-00 | METAL GLAZE | 1.5K 5% 1/10W |
| R267 | 1-216-077-00 | METAL GLAZE | 15K 5% 1/10W | R594 | 1-216-071-00 | METAL GLAZE | 8.2K 5% 1/10W |
| R268 | 1-215-869-11 | METAL OXIDE | 1K 5% 1W F | R597 | 1-216-041-00 | METAL GLAZE | 470 5% 1/10W |
| R269 | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W | | | | |

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.



| REF.NO. | PART NO. | DESCRIPTION | REMARK | REF.NO. | PART NO. | DESCRIPTION | REMARK |
|----------------|--------------|---------------------|--------|---------------------|-------------------|------------------------|--------|
| R598 | 1-215-900-11 | METAL OXIDE 22K 5% | 2W F | <VARIABLE RESISTOR> | | | |
| R600 | 1-249-381-11 | CARBON 1 5% | 1/4W | RV501 | 1-238-013-11 | RES, ADJ, CARBON 2.2K | |
| R601 | 1-216-353-00 | METAL OXIDE 2.2 5% | 1W F | RV502 | 1-238-016-11 | RES, ADJ, CARBON 10K | |
| R603 | 1-216-469-11 | METAL OXIDE 12 5% | 3W F | RV601 | 1-238-011-11 | RES, ADJ, CARBON 470 | |
| R604 | 1-216-025-00 | METAL GLAZE 100 5% | 1/10W | <SPARK GAP> | | | |
| R605 | 1-216-081-00 | METAL GLAZE 22K 5% | 1/10W | SG801 | 1-519-422-11 | GAP, SPARK | |
| R606 | 1-216-051-00 | METAL GLAZE 1.2K 5% | 1/10W | <THERMISTOR> | | | |
| R607 | 1-216-067-00 | METAL GLAZE 5.6K 5% | 1/10W | THP601 Δ | 1-808-059-31 | THERMISTOR, POSITIVE | |
| R608 Δ | 1-216-488-51 | METAL OXIDE 18K 5% | 3W F | ***** | | | |
| R609 | 1-216-007-00 | METAL GLAZE 18 5% | 1/10W | *1-634-193-11 | VM BOARD | | |
| R610 | 1-244-941-00 | CARBON 680K 5% | 1/2W | ***** | | | |
| R611 | 1-216-015-00 | METAL GLAZE 39 5% | 1/10W | *1-568-878-51 | PIN, CONNECTOR 3P | | |
| R612 | 1-216-049-00 | METAL GLAZE 1K 5% | 1/10W | <CAPACITOR> | | | |
| R613 | 1-216-097-00 | METAL GLAZE 100K 5% | 1/10W | C751 | 1-101-361-00 | CERAMIC 150PF 5% 50V | |
| R614 | 1-205-758-11 | WIREWOUND 100 10% | 10W F | C752 | 1-108-629-11 | MYLAR 0.018MF 10% 100V | |
| R616 | 1-216-099-00 | METAL GLAZE 120K 5% | 1/10W | C753 | 1-106-367-00 | MYLAR 0.01MF 10% 400V | |
| R617 | 1-216-037-00 | METAL GLAZE 330 5% | 1/10W | C754 | 1-102-980-00 | CERAMIC 270PF 5% 50V | |
| R618 | 1-216-431-11 | METAL OXIDE 560 5% | 1W F | C757 | 1-108-692-11 | MYLAR 0.01MF 10% 200V | |
| R619 | 1-216-073-00 | METAL GLAZE 10K 5% | 1/10W | C759 | 1-123-875-11 | ELECT 10MF 20% 50V | |
| R620 | 1-216-081-00 | METAL GLAZE 22K 5% | 1/10W | C760 | 1-124-917-11 | ELECT 33MF 20% 50V | |
| R621 | 1-216-077-00 | METAL GLAZE 15K 5% | 1/10W | C761 | 1-101-006-00 | CERAMIC 0.047MF 50V | |
| R622 | 1-216-073-00 | METAL GLAZE 10K 5% | 1/10W | C762 | 1-106-367-00 | MYLAR 0.01MF 10% 400V | |
| R623 | 1-216-081-00 | METAL GLAZE 22K 5% | 1/10W | <COIL> | | | |
| R624 | 1-216-067-00 | METAL GLAZE 5.6K 5% | 1/10W | L751 | 1-408-413-00 | INDUCTOR 22UH | |
| R625 | 1-215-865-11 | METAL OXIDE 220 5% | 1W F | L770 | 1-410-665-31 | INDUCTOR 15UH | |
| R626 | 1-216-037-00 | METAL GLAZE 330 5% | 1/10W | <TRANSISTOR> | | | |
| R628 | 1-216-001-00 | METAL GLAZE 10 5% | 1/10W | Q751 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| R629 | 1-216-037-00 | METAL GLAZE 330 5% | 1/10W | Q752 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| R633 | 1-216-049-00 | METAL GLAZE 1K 5% | 1/10W | Q753 | 8-729-140-97 | TRANSISTOR 2SB734-34 | |
| R634 | 1-216-430-11 | METAL OXIDE 390 5% | 1W F | Q754 | 8-729-140-96 | TRANSISTOR 2SD774-34 | |
| R635 | 1-216-073-00 | METAL GLAZE 10K 5% | 1/10W | <RESISTOR> | | | |
| R636 | 1-216-073-00 | METAL GLAZE 10K 5% | 1/10W | R751 | 1-249-418-11 | CARBON 1.2K 5% 1/4W | |
| R643 | 1-217-189-21 | WIREWOUND 0.12 5% | 2W F | R752 | 1-249-426-11 | CARBON 5.6K 5% 1/4W | |
| R651 | 1-216-025-00 | METAL GLAZE 100 5% | 1/10W | R753 | 1-249-414-11 | CARBON 560 5% 1/4W | |
| R653 | 1-205-758-11 | WIREWOUND 100 10% | 10W F | R754 | 1-249-434-11 | CARBON 27K 5% 1/4W | |
| R802 | 1-249-443-11 | CARBON 0.47 5% | 1/4W F | R755 | 1-249-405-11 | CARBON 100 5% 1/4W | |
| R805 | 1-249-448-11 | CARBON 1.2 5% | 1/4W F | R756 | 1-249-419-11 | CARBON 1.5K 5% 1/4W | |
| R806 | 1-216-093-00 | METAL GLAZE 68K 5% | 1/10W | R757 | 1-249-405-11 | CARBON 100 5% 1/4W | |
| R807 | 1-215-869-11 | METAL OXIDE 1K 5% | 1W F | R758 | 1-249-409-11 | CARBON 220 5% 1/4W | |
| R809 | 1-202-821-11 | SOLID 1.8K 10% | 1/2W | R760 | 1-249-411-11 | CARBON 330 5% 1/4W | |
| R810 | 1-202-818-00 | SOLID 1K 10% | 1/2W | R761 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R811 | 1-215-882-00 | METAL OXIDE 22 5% | 2W F | R762 | 1-247-895-00 | CARBON 470K 5% 1/4W | |
| R812 | 1-244-916-11 | CARBON 62K 5% | 1/2W | R763 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R815 | 1-215-884-11 | METAL OXIDE 47 5% | 2W F | R764 | 1-249-455-11 | CARBON 4.7 5% 1/4W | |
| R816 | 1-215-868-00 | METAL OXIDE 680 5% | 1W F | R765 | 1-249-455-11 | CARBON 4.7 5% 1/4W | |
| R817 | 1-216-049-00 | METAL GLAZE 1K 5% | 1/10W | R766 | 1-247-753-11 | CARBON 1.2K 5% 1/2W | |
| R820 | 1-249-403-11 | CARBON 68 5% | 1/4W | R767 | 1-247-751-11 | CARBON 820 5% 1/2W | |
| R821 | 1-247-725-11 | CARBON 10K 5% | 1/4W F | R768 | 1-215-887-00 | METAL OXIDE 150 5% 2W | |
| R822 Δ | 1-217-778-61 | FUSIBLE 1K 5% | 1W F | | | | |
| R825 | 1-216-345-11 | METAL OXIDE 0.47 5% | 1W F | | | | |
| R826 | 1-216-097-00 | METAL GLAZE 100K 5% | 1/10W | | | | |
| R827 | 1-216-073-00 | METAL GLAZE 10K 5% | 1/10W | | | | |
| R828 | 1-216-059-00 | METAL GLAZE 2.7K 5% | 1/10W | | | | |
| R829 | 1-216-051-00 | METAL GLAZE 1.2K 5% | 1/10W | | | | |
| R831 | 1-249-451-11 | CARBON 2.2 5% | 1/4W | | | | |
| R1601 Δ | 1-246-513-75 | CARBON 47K 5% | 1/4W | | | | |
| R1602 Δ | 1-244-945-91 | CARBON 1M 5% | 1/2W | | | | |
| R1603 Δ | 1-217-328-11 | WIREWOUND 2.7 10% | 7W F | | | | |
| R1604 Δ | 1-246-513-75 | CARBON 47K 5% | 1/4W | | | | |
| R1605 Δ | 1-218-265-91 | METAL GLAZE 8.2M 5% | 1W | | | | |
| R5501 | 1-216-073-00 | METAL GLAZE 10K 5% | 1/10W | | | | |
| R5503 | 1-216-001-00 | METAL GLAZE 10 5% | 1/10W | | | | |
| R5504 | 1-216-121-00 | METAL GLAZE 1M 5% | 1/10W | | | | |
| R5505 | 1-216-001-00 | METAL GLAZE 10 5% | 1/10W | | | | |

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

VM

H1

H2

J2

J1

| REF.NO. | PART NO. | DESCRIPTION | REMARK | REF.NO. | PART NO. | DESCRIPTION | REMARK |
|---------------|------------------------------|-----------------------|--------|---------------|----------------------------|-------------------------------|--------|
| R769 | Δ 1-212-889-51 | FUSIBLE 220 5% 1/4W F | | *A-1651-015-A | J1 BOARD, COMPLETE | ***** | |
| ***** | | | | 1-561-534-41 | SOCKET 21P | | |
| *1-633-409-11 | H1 BOARD | ***** | | *1-564-524-11 | PLUG, CONNECTOR 9P | | |
| 1-562-837-11 | JACK | | | *1-564-527-11 | PLUG, CONNECTOR 12P | | |
| *1-564-512-11 | PLUG, CONNECTOR 9P | | | *1-566-641-11 | CONNECTOR, HINGE (TAB) 18P | | |
| *1-568-879-51 | PIN, CONNECTOR 4P | | | <CAPACITOR> | | | |
| *1-568-881-51 | PIN, CONNECTOR 6P | | | C203 | 1-124-925-11 | ELECT 2.2MF 20% 50V | |
| 1-569-473-11 | JACK BLOCK, PIN 3P | | | C205 | 1-124-927-11 | ELECT 4.7MF 20% 50V | |
| <RESISTOR> | | | | C206 | 1-124-925-11 | ELECT 2.2MF 20% 50V | |
| R1651 | 1-249-413-11 | CARBON 470 5% 1/4W | | C207 | 1-124-927-11 | ELECT 4.7MF 20% 50V | |
| R1652 | 1-249-413-11 | CARBON 470 5% 1/4W | | C213 | 1-126-233-11 | ELECT 22MF 20% 50V | |
| <SWITCH> | | | | C214 | 1-106-363-00 | MYLAR 0.0068MF 10% 400V | |
| S1651 | 1-571-532-21 | SWITCH, TACTIL | | C217 | 1-106-363-00 | MYLAR 0.0068MF 10% 400V | |
| S1652 | 1-571-532-21 | SWITCH, TACTIL | | C218 | 1-106-375-12 | MYLAR 0.022MF 10% 250V | |
| S1653 | 1-571-532-21 | SWITCH, TACTIL | | C219 | 1-106-375-12 | MYLAR 0.022MF 10% 250V | |
| ***** | | | | C220 | 1-108-620-11 | MYLAR 0.0033MF 10% 100V | |
| *1-633-410-11 | H2 BOARD | ***** | | C221 | 1-108-620-11 | MYLAR 0.0033MF 10% 100V | |
| *1-568-882-51 | PIN, CONNECTOR 7P | | | C222 | 1-106-385-00 | MYLAR 0.056MF 10% 100V | |
| *4-374-987-01 | GUIDE, LIGHT | | | C223 | 1-106-385-00 | MYLAR 0.056MF 10% 100V | |
| *4-381-686-01 | BRACKET (B), LIGHT GUIDE | | | C224 | 1-106-367-00 | MYLAR 0.01MF 10% 400V | |
| <DIODE> | | | | C225 | 1-136-173-00 | FILM 0.47MF 5% 50V | |
| D1651 | 8-719-948-31 | DIODE LD-201VR | | C226 | 1-136-173-00 | FILM 0.47MF 5% 50V | |
| *4-201-076-01 | HOLDER, LED; D1651 | | | C227 | 1-106-375-12 | MYLAR 0.022MF 10% 250V | |
| D1652 | 8-719-948-31 | DIODE LD-201VR | | C228 | 1-106-379-12 | MYLAR 0.033MF 10% 250V | |
| *4-201-076-01 | HOLDER, LED; D1652 | | | C229 | 1-106-371-00 | MYLAR 0.015MF 10% 400V | |
| D1654 | 8-719-948-31 | DIODE LD-201VR | | C230 | 1-106-371-00 | MYLAR 0.015MF 10% 400V | |
| *4-201-076-01 | HOLDER, LED; D1654 | | | C231 | 1-124-902-00 | ELECT 0.47MF 20% 50V | |
| <IC> | | | | C232 | 1-123-875-11 | ELECT 10MF 20% 50V | |
| IC1651 | 8-741-138-70 | IC BX-1387 | | C233 | 1-163-005-11 | CERAMIC CHIP 470PF 10% 50V | |
| <RESISTOR> | | | | C234 | 1-163-005-11 | CERAMIC CHIP 470PF 10% 50V | |
| R1662 | 1-249-413-11 | CARBON 470 5% 1/4W | | C235 | 1-163-005-11 | CERAMIC CHIP 470PF 10% 50V | |
| ***** | | | | C236 | 1-163-005-11 | CERAMIC CHIP 470PF 10% 50V | |
| *1-633-411-11 | J2 BOARD | ***** | | C237 | 1-124-902-00 | ELECT 0.47MF 20% 50V | |
| 1-537-088-21 | TERMINAL BOARD, INPUT/OUTPUT | | | C238 | 1-163-125-00 | CERAMIC CHIP 220PF 5% 50V | |
| *1-560-278-21 | PLUG, CONNECTOR 4P | | | C239 | 1-126-103-11 | ELECT 470MF 20% 16V | |
| *1-564-517-11 | PLUG, CONNECTOR 2P | | | C240 | 1-163-018-00 | CERAMIC CHIP 0.0056MF 10% 50V | |
| *1-564-519-11 | PLUG, CONNECTOR 4P | | | C241 | 1-163-018-00 | CERAMIC CHIP 0.0056MF 10% 50V | |
| <CAPACITOR> | | | | C242 | 1-163-033-00 | CERAMIC CHIP 0.022MF 50V | |
| C1751 | 1-101-005-00 | CERAMIC 0.022MF 50V | | C243 | 1-163-033-00 | CERAMIC CHIP 0.022MF 50V | |
| C1752 | 1-101-005-00 | CERAMIC 0.022MF 50V | | C244 | 1-163-033-00 | CERAMIC CHIP 0.022MF 50V | |
| C1755 | 1-102-114-00 | CERAMIC 470PF 10% 50V | | C245 | 1-163-033-00 | CERAMIC CHIP 0.022MF 50V | |
| C1756 | 1-102-114-00 | CERAMIC 470PF 10% 50V | | C1401 | 1-123-875-11 | ELECT 10MF 20% 50V | |
| <COIL> | | | | C1402 | 1-126-103-11 | ELECT 470MF 20% 16V | |
| L1751 | 1-412-240-11 | INDUCTOR, WIDE BAND | | C1403 | 1-163-003-11 | CERAMIC CHIP 330PF 10% 50V | |
| L1752 | 1-412-240-11 | INDUCTOR, WIDE BAND | | C1404 | 1-106-220-00 | MYLAR 0.1MF 10% 100V | |
| ***** | | | | C1405 | 1-136-017-00 | CERAMIC CHIP 0.0047MF 50V | |
| | | | | C1406 | 1-106-220-00 | MYLAR 0.1MF 10% 100V | |
| | | | | C1407 | 1-124-910-11 | ELECT 47MF 20% 50V | |
| | | | | C1408 | 1-124-122-11 | ELECT 100MF 20% 50V | |
| | | | | C1409 | 1-126-233-11 | ELECT 22MF 20% 50V | |
| | | | | C1410 | 1-123-875-11 | ELECT 10MF 20% 50V | |
| | | | | C1411 | 1-123-875-11 | ELECT 10MF 20% 50V | |
| | | | | C1412 | 1-124-910-11 | ELECT 47MF 20% 50V | |
| | | | | C1413 | 1-124-910-11 | ELECT 47MF 20% 50V | |
| | | | | C1414 | 1-123-875-11 | ELECT 10MF 20% 50V | |
| | | | | C1415 | 1-106-220-00 | MYLAR 0.1MF 10% 100V | |
| | | | | C1416 | 1-106-220-00 | MYLAR 0.1MF 10% 100V | |
| | | | | C1417 | 1-124-120-11 | ELECT 220MF 20% 16V | |

J1

| REF.NO. | PART NO. | DESCRIPTION | REMARK | REF.NO. | PART NO. | DESCRIPTION | REMARK |
|-------------|--------------|-----------------------|----------|--------------|--------------|----------------------|--------|
| C1418 | 1-163-003-11 | CERAMIC CHIP 330PF | 10% 50V | D1505 | 8-719-911-19 | DIODE 1SS119 | |
| C1419 | 1-163-003-11 | CERAMIC CHIP 330PF | 10% 50V | D1506 | 8-719-929-79 | DIODE HZS36NB4 | |
| C1425 | 1-124-902-00 | ELECT 0.47MF | 20% 50V | D1507 | 8-719-911-19 | DIODE 1SS119 | |
| C1426 | 1-124-902-00 | ELECT 0.47MF | 20% 50V | D1510 | 8-719-911-19 | DIODE 1SS119 | |
| C1427 | 1-136-017-00 | CERAMIC CHIP 0.0047MF | 50V | <IC> | | | |
| C1428 | 1-136-017-00 | CERAMIC CHIP 0.0047MF | 50V | IC201 | 8-759-013-17 | IC TDA6200 | |
| C1429 | 1-136-017-00 | CERAMIC CHIP 0.0047MF | 50V | IC1401 | 8-752-032-27 | IC CXA1114P | |
| C1430 | 1-163-003-11 | CERAMIC CHIP 330PF | 10% 50V | IC1402 | 8-759-946-32 | IC TEA2014A | |
| C1431 | 1-126-529-11 | ELECT 0.47MF | 20% 50V | IC1403 | 8-759-040-53 | IC MC14053BCP | |
| C1432 | 1-124-902-00 | ELECT 0.47MF | 20% 50V | IC1501 | 8-759-942-16 | IC TEA2031A | |
| C1433 | 1-124-122-11 | ELECT 100MF | 20% 50V | <TRANSISTOR> | | | |
| C1436 | 1-163-009-11 | CERAMIC CHIP 0.001MF | 10% 50V | Q201 | 8-729-271-22 | TRANSISTOR 2SC2712-G | |
| C1437 | 1-163-009-11 | CERAMIC CHIP 0.001MF | 10% 50V | Q202 | 8-729-271-22 | TRANSISTOR 2SC2712-G | |
| C1438 | 1-106-367-00 | MYLAR 0.01MF | 10% 400V | Q1401 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| C1439 | 1-106-367-00 | MYLAR 0.01MF | 10% 400V | Q1402 | 8-729-271-22 | TRANSISTOR 2SC2712-G | |
| C1440 | 1-123-875-11 | ELECT 10MF | 20% 50V | Q1403 | 8-729-271-22 | TRANSISTOR 2SC2712-G | |
| C1441 | 1-123-875-11 | ELECT 10MF | 20% 50V | <RESISTOR> | | | |
| C1442 | 1-106-220-00 | MYLAR 0.1MF | 10% 100V | R201 | 1-216-079-00 | METAL GLAZE 18K 5% | 1/10W |
| C1443 | 1-106-220-00 | MYLAR 0.1MF | 10% 100V | R202 | 1-216-206-00 | METAL GLAZE 2.2K 5% | 1/8W |
| C1444 | 1-124-910-11 | ELECT 47MF | 20% 50V | R203 | 1-216-075-00 | METAL GLAZE 12K 5% | 1/10W |
| C1445 | 1-102-824-00 | CERAMIC 470PF | 5% 50V | R204 | 1-216-085-00 | METAL GLAZE 33K 5% | 1/10W |
| C1446 | 1-102-824-00 | CERAMIC 470PF | 5% 50V | R205 | 1-216-085-00 | METAL GLAZE 33K 5% | 1/10W |
| C1501 | 1-124-927-11 | ELECT 4.7MF | 20% 50V | R206 | 1-216-061-00 | METAL GLAZE 3.3K 5% | 1/10W |
| C1502 | 1-124-791-11 | ELECT 1MF | 20% 50V | R207 | 1-216-061-00 | METAL GLAZE 3.3K 5% | 1/10W |
| C1503 | 1-108-614-11 | MYLAR 0.001MF | 10% 100V | R208 | 1-216-077-00 | METAL GLAZE 15K 5% | 1/10W |
| C1504 | 1-124-910-11 | ELECT 47MF | 20% 50V | R209 | 1-216-081-00 | METAL GLAZE 22K 5% | 1/10W |
| C1505 | 1-106-383-00 | MYLAR 0.047MF | 10% 100V | R210 | 1-216-077-00 | METAL GLAZE 15K 5% | 1/10W |
| C1507 | 1-108-620-11 | MYLAR 0.0033MF | 10% 100V | R211 | 1-216-097-00 | METAL GLAZE 100K 5% | 1/10W |
| C1508 | 1-124-791-11 | ELECT 1MF | 20% 50V | R212 | 1-216-081-00 | METAL GLAZE 22K 5% | 1/10W |
| C1509 | 1-124-791-11 | ELECT 1MF | 20% 50V | R213 | 1-216-077-00 | METAL GLAZE 15K 5% | 1/10W |
| C1511 | 1-124-927-11 | ELECT 4.7MF | 20% 50V | R214 | 1-216-033-00 | METAL GLAZE 220 5% | 1/10W |
| C1513 | 1-163-105-00 | CERAMIC CHIP 33PF | 5% 50V | R215 | 1-216-081-00 | METAL GLAZE 22K 5% | 1/10W |
| <CONNECTOR> | | | | R216 | 1-216-081-00 | METAL GLAZE 22K 5% | 1/10W |
| CN1401 | 1-565-838-11 | PIN JACK BLOCK 2P | | R217 | 1-216-077-00 | METAL GLAZE 15K 5% | 1/10W |
| <DIODE> | | | | R218 | 1-216-033-00 | METAL GLAZE 220 5% | 1/10W |
| D201 | 8-719-929-16 | DIODE HZS9.1NB3 | | R219 | 1-216-073-00 | METAL GLAZE 10K 5% | 1/10W |
| D202 | 8-719-929-16 | DIODE HZS9.1NB3 | | R220 | 1-216-057-00 | METAL GLAZE 2.2K 5% | 1/10W |
| D205 | 8-719-929-08 | DIODE HZS7.5NB3 | | R221 | 1-216-041-00 | METAL GLAZE 470 5% | 1/10W |
| D206 | 8-719-929-08 | DIODE HZS7.5NB3 | | R222 | 1-216-041-00 | METAL GLAZE 470 5% | 1/10W |
| D1401 | 8-719-929-08 | DIODE HZS7.5NB3 | | R223 | 1-216-049-00 | METAL GLAZE 1K 5% | 1/10W |
| D1404 | 8-719-929-08 | DIODE HZS7.5NB3 | | R224 | 1-216-049-00 | METAL GLAZE 1K 5% | 1/10W |
| D1405 | 8-719-929-08 | DIODE HZS7.5NB3 | | R225 | 1-216-049-00 | METAL GLAZE 1K 5% | 1/10W |
| D1407 | 8-719-929-20 | DIODE HZS10NB3 | | R226 | 1-216-049-00 | METAL GLAZE 1K 5% | 1/10W |
| D1408 | 8-719-929-16 | DIODE HZS9.1NB3 | | R227 | 1-216-033-00 | METAL GLAZE 220 5% | 1/10W |
| D1409 | 8-719-929-16 | DIODE HZS9.1NB3 | | R228 | 1-216-033-00 | METAL GLAZE 220 5% | 1/10W |
| D1410 | 8-719-929-16 | DIODE HZS9.1NB3 | | R229 | 1-216-075-00 | METAL GLAZE 12K 5% | 1/10W |
| D1415 | 8-719-929-08 | DIODE HZS7.5NB3 | | R230 | 1-216-079-00 | METAL GLAZE 18K 5% | 1/10W |
| D1418 | 8-719-929-08 | DIODE HZS7.5NB3 | | R231 | 1-216-073-00 | METAL GLAZE 10K 5% | 1/10W |
| D1419 | 8-719-929-08 | DIODE HZS7.5NB3 | | R232 | 1-216-073-00 | METAL GLAZE 10K 5% | 1/10W |
| D1420 | 8-719-929-08 | DIODE HZS7.5NB3 | | R233 | 1-216-057-00 | METAL GLAZE 2.2K 5% | 1/10W |
| D1421 | 8-719-929-08 | DIODE HZS7.5NB3 | | R234 | 1-216-057-00 | METAL GLAZE 2.2K 5% | 1/10W |
| D1422 | 8-719-929-08 | DIODE HZS7.5NB3 | | R240 | 1-216-033-00 | METAL GLAZE 220 5% | 1/10W |
| D1423 | 8-719-929-08 | DIODE HZS7.5NB3 | | R241 | 1-216-091-00 | METAL GLAZE 56K 5% | 1/10W |
| D1424 | 8-719-929-08 | DIODE HZS7.5NB3 | | R242 | 1-216-091-00 | METAL GLAZE 56K 5% | 1/10W |
| D1425 | 8-719-929-08 | DIODE HZS7.5NB3 | | R243 | 1-216-075-00 | METAL GLAZE 12K 5% | 1/10W |
| D1426 | 8-719-929-08 | DIODE HZS7.5NB3 | | R244 | 1-216-067-00 | METAL GLAZE 5.6K 5% | 1/10W |
| D1501 | 8-719-300-33 | DIODE RU-3AM | | R245 | 1-216-075-00 | METAL GLAZE 12K 5% | 1/10W |
| D1502 | 8-719-911-19 | DIODE 1SS119 | | | | | |
| D1503 | 8-719-911-19 | DIODE 1SS119 | | | | | |
| D1504 | 8-719-911-19 | DIODE 1SS119 | | | | | |

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| J1 | IFG |
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| REF. NO. | PART NO. | DESCRIPTION | | | | REMARK | REF. NO. | PART NO. | DESCRIPTION | | | | REMARK |
|----------|--------------|-------------|------|----|-------|--------|----------|--------------|-------------|------|----|-------|--------|
| R246 | 1-216-067-00 | METAL GLAZE | 5.6K | 5% | 1/10W | | R1473 | 1-216-023-00 | METAL GLAZE | 82 | 5% | 1/10W | |
| R247 | 1-216-075-00 | METAL GLAZE | 12K | 5% | 1/10W | | | | | | | | |
| R248 | 1-216-067-00 | METAL GLAZE | 5.6K | 5% | 1/10W | | R1474 | 1-216-113-00 | METAL GLAZE | 470K | 5% | 1/10W | |
| R249 | 1-216-075-00 | METAL GLAZE | 12K | 5% | 1/10W | | R1476 | 1-216-089-00 | METAL GLAZE | 47K | 5% | 1/10W | |
| R250 | 1-216-067-00 | METAL GLAZE | 5.6K | 5% | 1/10W | | R1477 | 1-216-089-00 | METAL GLAZE | 47K | 5% | 1/10W | |
| | | | | | | | R1478 | 1-216-113-00 | METAL GLAZE | 470K | 5% | 1/10W | |
| R1401 | 1-216-023-00 | METAL GLAZE | 82 | 5% | 1/10W | | R1480 | 1-216-190-00 | METAL GLAZE | 470 | 5% | 1/8W | |
| R1402 | 1-216-170-00 | METAL GLAZE | 68 | 5% | 1/8W | | | | | | | | |
| R1403 | 1-216-089-00 | METAL GLAZE | 47K | 5% | 1/10W | | R1482 | 1-216-178-00 | METAL GLAZE | 150 | 5% | 1/8W | |
| R1404 | 1-216-178-00 | METAL GLAZE | 150 | 5% | 1/8W | | R1483 | 1-216-178-00 | METAL GLAZE | 150 | 5% | 1/8W | |
| R1405 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | | R1484 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W | |
| | | | | | | | R1485 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W | |
| R1407 | 1-216-113-00 | METAL GLAZE | 470K | 5% | 1/10W | | R1486 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W | |
| R1408 | 1-216-089-00 | METAL GLAZE | 47K | 5% | 1/10W | | | | | | | | |
| R1409 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | | R1487 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W | |
| R1410 | 1-216-089-00 | METAL GLAZE | 47K | 5% | 1/10W | | R1488 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W | |
| R1411 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | | R1489 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W | |
| | | | | | | | R1501 | 1-216-081-00 | METAL GLAZE | 22K | 5% | 1/10W | |
| R1412 | 1-216-089-00 | METAL GLAZE | 47K | 5% | 1/10W | | R1502 | 1-216-083-00 | METAL GLAZE | 27K | 5% | 1/10W | |
| R1413 | 1-216-113-00 | METAL GLAZE | 470K | 5% | 1/10W | | | | | | | | |
| R1414 | 1-216-089-00 | METAL GLAZE | 47K | 5% | 1/10W | | R1503 | 1-216-113-00 | METAL GLAZE | 470K | 5% | 1/10W | |
| R1415 | 1-216-083-00 | METAL GLAZE | 27K | 5% | 1/10W | | R1504 | 1-216-085-00 | METAL GLAZE | 33K | 5% | 1/10W | |
| R1416 | 1-216-083-00 | METAL GLAZE | 27K | 5% | 1/10W | | R1505 | 1-216-081-00 | METAL GLAZE | 22K | 5% | 1/10W | |
| | | | | | | | R1506 | 1-216-113-00 | METAL GLAZE | 470K | 5% | 1/10W | |
| R1417 | 1-216-023-00 | METAL GLAZE | 82 | 5% | 1/10W | | R1509 | 1-216-105-00 | METAL GLAZE | 220K | 5% | 1/10W | |
| R1418 | 1-247-738-11 | CARBON | 82 | 5% | 1/2W | F | | | | | | | |
| R1422 | 1-216-025-00 | METAL GLAZE | 100 | 5% | 1/10W | | R1510 | 1-216-067-00 | METAL GLAZE | 5.6K | 5% | 1/10W | |
| R1423 | 1-216-089-00 | METAL GLAZE | 47K | 5% | 1/10W | | R1511 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | |
| R1424 | 1-216-089-00 | METAL GLAZE | 47K | 5% | 1/10W | | R1512 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W | |
| | | | | | | | R1513 | 1-216-091-00 | METAL GLAZE | 56K | 5% | 1/10W | |
| R1425 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | | R1514 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | |
| R1426 | 1-216-025-00 | METAL GLAZE | 100 | 5% | 1/10W | | | | | | | | |
| R1427 | 1-216-001-00 | METAL GLAZE | 10 | 5% | 1/10W | | R1516 | 1-216-079-00 | METAL GLAZE | 18K | 5% | 1/10W | |
| R1428 | 1-216-113-00 | METAL GLAZE | 470K | 5% | 1/10W | | R1517 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W | |
| R1429 | 1-216-113-00 | METAL GLAZE | 470K | 5% | 1/10W | | R1519 | 1-216-101-00 | METAL GLAZE | 150K | 5% | 1/10W | |
| | | | | | | | R1520 | 1-216-111-00 | METAL GLAZE | 390K | 5% | 1/10W | |
| R1430 | 1-216-170-00 | METAL GLAZE | 68 | 5% | 1/8W | | R1521 | 1-216-214-00 | METAL GLAZE | 4.7K | 5% | 1/8W | |
| R1431 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | | | | | | | | |
| R1432 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | | R1550 | 1-216-349-00 | METAL OXIDE | 1 | 5% | 1W | F |
| R1433 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W | | R1556 | 1-216-067-00 | METAL GLAZE | 5.6K | 5% | 1/10W | |
| R1434 | 1-249-393-11 | CARBON | 10 | 5% | 1/4W | F | | | | | | | |
| | | | | | | | | | | | | | |
| R1437 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | | | | | | | | |
| R1440 | 1-216-045-00 | METAL GLAZE | 680 | 5% | 1/10W | | | | | | | | |
| R1441 | 1-216-045-00 | METAL GLAZE | 680 | 5% | 1/10W | | | | | | | | |
| R1442 | 1-216-089-00 | METAL GLAZE | 47K | 5% | 1/10W | | | | | | | | |
| R1443 | 1-216-089-00 | METAL GLAZE | 47K | 5% | 1/10W | | | | | | | | |
| | | | | | | | | | | | | | |
| R1444 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W | | | | | | | | |
| R1445 | 1-216-095-00 | METAL GLAZE | 82K | 5% | 1/10W | | | | | | | | |
| R1446 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W | | | | | | | | |
| R1447 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W | | | | | | | | |
| R1448 | 1-216-025-00 | METAL GLAZE | 100 | 5% | 1/10W | | | | | | | | |
| | | | | | | | | | | | | | |
| R1452 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | | | | | | | | |
| R1453 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | | | | | | | | |
| R1454 | 1-216-180-00 | METAL GLAZE | 180 | 5% | 1/8W | | | | | | | | |
| R1455 | 1-216-180-00 | METAL GLAZE | 180 | 5% | 1/8W | | | | | | | | |
| R1457 | 1-216-025-00 | METAL GLAZE | 100 | 5% | 1/10W | | | | | | | | |
| | | | | | | | | | | | | | |
| R1459 | 1-216-025-00 | METAL GLAZE | 100 | 5% | 1/10W | | | | | | | | |
| R1460 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W | | | | | | | | |
| R1461 | 1-216-190-00 | METAL GLAZE | 470 | 5% | 1/8W | | | | | | | | |
| R1462 | 1-216-057-00 | METAL GLAZE | 2.2K | 5% | 1/10W | | | | | | | | |
| R1463 | 1-216-055-00 | METAL GLAZE | 1.8K | 5% | 1/10W | | | | | | | | |
| | | | | | | | | | | | | | |
| R1464 | 1-216-059-00 | METAL GLAZE | 2.7K | 5% | 1/10W | | | | | | | | |
| R1465 | 1-216-023-00 | METAL GLAZE | 82 | 5% | 1/10W | | | | | | | | |
| R1466 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W | | | | | | | | |
| R1467 | 1-216-025-00 | METAL GLAZE | 100 | 5% | 1/10W | | | | | | | | |
| R1468 | 1-216-025-00 | METAL GLAZE | 100 | 5% | 1/10W | | | | | | | | |
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| R1469 | 1-216-025-00 | METAL GLAZE | 100 | 5% | 1/10W | | | | | | | | |
| R1470 | 1-216-025-00 | METAL GLAZE | 100 | 5% | 1/10W | | | | | | | | |
| R1471 | 1-216-023-00 | METAL GLAZE | 82 | 5% | 1/10W | | | | | | | | |
| R1472 | 1-216-023-00 | METAL GLAZE | 82 | 5% | 1/10W | | | | | | | | |
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IFG

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

| REF.NO. | PART NO. | DESCRIPTION | REMARK |
|--------------|--------------|------------------------|--------|
| C11 | 1-163-119-00 | CERAMIC CHIP 120PF | 5% |
| C12 | 1-136-298-00 | FILM 0.0033MF | 2% |
| C13 | 1-124-477-11 | ELECT 47MF | 20% |
| C14 | 1-124-477-11 | ELECT 47MF | 20% |
| C15 | 1-124-477-11 | ELECT 47MF | 20% |
| C16 | 1-124-477-11 | ELECT 47MF | 20% |
| C17 | 1-123-875-11 | ELECT 10MF | 20% |
| C18 | 1-106-367-00 | MYLAR 0.01MF | 10% |
| C19 | 1-106-367-00 | MYLAR 0.01MF | 10% |
| C20 | 1-126-233-11 | ELECT 22MF | 20% |
| C21 | 1-126-233-11 | ELECT 22MF | 20% |
| C22 | 1-106-220-00 | MYLAR 0.1MF | 10% |
| C23 | 1-106-228-00 | MYLAR 0.22MF | 10% |
| C24 | 1-124-963-11 | ELECT 33MF | 20% |
| C25 | 1-106-375-12 | MYLAR 0.022MF | 10% |
| C26 | 1-106-383-00 | MYLAR 0.047MF | 10% |
| C27 | 1-124-791-11 | ELECT 1MF | 20% |
| C28 | 1-163-103-00 | CERAMIC CHIP 27PF | 5% |
| C29 | 1-124-791-11 | ELECT 1MF | 20% |
| C30 | 1-124-791-11 | ELECT 1MF | 20% |
| C31 | 1-106-367-00 | MYLAR 0.01MF | 10% |
| C32 | 1-130-479-00 | MYLAR 0.0047MF | 5% |
| C33 | 1-163-081-00 | CERAMIC CHIP 0.22MF | 10% |
| C34 | 1-106-228-00 | MYLAR 0.22MF | 10% |
| C35 | 1-123-875-11 | ELECT 10MF | 20% |
| C36 | 1-163-119-00 | CERAMIC CHIP 120PF | 5% |
| C37 | 1-124-477-11 | ELECT 47MF | 20% |
| C38 | 1-124-477-11 | ELECT 47MF | 20% |
| <FILTER> | | | |
| CDA1 | 1-404-751-11 | DISCRIMINATOR, CERAMIC | |
| CDA2 | 1-404-750-11 | DISCRIMINATOR, CERAMIC | |
| SFT1 | 1-527-840-00 | FILTER, CERAMIC | |
| SFT2 | 1-527-839-00 | FILTER, CERAMIC | |
| <DIODE> | | | |
| D3 | 8-719-400-18 | DIODE MA152WK | |
| <IC> | | | |
| IC1 | 8-759-003-90 | IC TBA129 | |
| IC2 | 8-759-003-90 | IC TBA129 | |
| IC3 | 8-759-030-48 | IC TDA6600-2 | |
| IC4 | 8-759-946-99 | IC TDA2595-V7 | |
| <COIL> | | | |
| L1 | 1-408-410-00 | INDUCTOR 12UH | |
| L2 | 1-408-410-00 | INDUCTOR 12UH | |
| L3 | 1-410-064-11 | INDUCTOR 2.7MMH | |
| L4 | 1-408-421-00 | INDUCTOR 100UH | |
| L5 | 1-408-421-00 | INDUCTOR 100UH | |
| <TRANSISTOR> | | | |
| Q2 | 8-729-901-00 | TRANSISTOR DTC124EK | |
| Q3 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q4 | 8-729-901-00 | TRANSISTOR DTC124EK | |
| <RESISTOR> | | | |
| JR8 | 1-216-296-00 | METAL GLAZE 0 | 5% |
| JR10 | 1-216-296-00 | METAL GLAZE 0 | 5% |

| REF.NO. | PART NO. | DESCRIPTION | REMARK |
|---------|--------------|------------------|--------|
| R1 | 1-216-045-00 | METAL GLAZE 680 | 5% |
| R2 | 1-216-043-00 | METAL GLAZE 560 | 5% |
| R3 | 1-216-043-00 | METAL GLAZE 560 | 5% |
| R5 | 1-216-045-00 | METAL GLAZE 680 | 5% |
| R6 | 1-216-043-00 | METAL GLAZE 560 | 5% |
| R7 | 1-216-043-00 | METAL GLAZE 560 | 5% |
| R9 | 1-216-073-00 | METAL GLAZE 10K | 5% |
| R10 | 1-216-077-00 | METAL GLAZE 15K | 5% |
| R11 | 1-216-097-00 | METAL GLAZE 100K | 5% |
| R12 | 1-216-097-00 | METAL GLAZE 100K | 5% |
| R15 | 1-216-059-00 | METAL GLAZE 2.7K | 5% |
| R16 | 1-216-097-00 | METAL GLAZE 100K | 5% |
| R17 | 1-216-097-00 | METAL GLAZE 100K | 5% |
| R18 | 1-216-063-00 | METAL GLAZE 3.9K | 5% |
| R19 | 1-216-097-00 | METAL GLAZE 100K | 5% |
| R20 | 1-216-075-00 | METAL GLAZE 12K | 5% |
| R22 | 1-216-099-00 | METAL GLAZE 120K | 5% |
| R24 | 1-216-089-00 | METAL GLAZE 47K | 5% |
| R25 | 1-216-077-00 | METAL GLAZE 15K | 5% |

<VARIABLE RESISTOR>

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|-----|--------------|----------------------|
| RV1 | 1-238-016-11 | RES, ADJ, CARBON 10K |
| RV2 | 1-238-019-11 | RES, ADJ, CARBON 47K |

MISCELLANEOUS

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|-----------------------|-------------------------------------|
| Δ 1-426-398-11 | COIL, DEMAGNETIZATION |
| Δ 1-451-313-21 | DEFLECTION YOKE (Y29FXA) |
| 1-452-032-00 | MAGNET, DISK; 10MM ϕ |
| 1-452-094-00 | MAGNET, ROTATABLE DISK; 15MM ϕ |
| Δ 1-452-509-42 | NECK ASSY, PICTURE TUBE (NA-308) |

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| Δ 1-575-487-11 | SPEAKER CORD, POWER (WITH NOISE FILTER) |
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| V901 Δ 8-733-823-05 | PICTURE TUBE (A68JYK60X) |
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ACCESSORIES AND PACKING MATERIALS

| PART NO. | DESCRIPTION | REMARK |
|---------------|------------------------|--------|
| 3-752-237-11 | MANUAL, INSTRUCTION | |
| *4-384-027-01 | BAG, PROTECTION | |
| *4-398-903-01 | CUSHION (UPPER) (ASSY) | |
| *4-398-904-01 | CUSHION (LOWER) (ASSY) | |
| *4-398-905-01 | INDIVIDUAL CARTON | |

REMOTE COMMANDER

| | |
|--------------|-----------------------------|
| 1-465-363-11 | COMMANDER, REMOTE (RM-689) |
| 4-395-610-01 | COVER, BATTERY (FOR RM-689) |